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CHILDREN'S CONCEPTS OF ETHNIC GROUPS

by

(C)

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ABSTRACT

This study was designed to investigate the questions: i) Do children have distinct concepts of ethnic groups? ii) Do the ethnic concepts change with grade level? iii) What are children's concepts of specific ethnic groups?

Five hundred thirty-six students in grades four and eight were administered a semantic differential with twelve sets of adjective-pairs and an open-ended questionnaire concerning eleven ethnic groups. The semantic differential was analyzed using a two factor analysis of variance with repeated measures. Significant differences at the .05-level were found for all but one set of adjective-pairs. Both the differences between ethnic concepts, and the interaction between grade and ethnic concept were significant at the .05-level for all adjective-pairs. Scheffé post-hoc analyses revealed specific differences between grades and among the ethnic concepts. Trends in the use of adjective-pairs were also examined. The responses to the questionnaire were analyzed according to twenty-six content categories; differences in the categories used with each ethnic concept for each grade were discussed and compared to previous research findings.

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CHAPTER I

INTRODUCTION

Children's concepts of ethnic groups and their development have received considerable study since the 1930's by those concerned with ethnic relations within their own countries and between countries.

Research on ethnic concepts was given an impetus when Katz and Braly (1933) introduced the use of the easily administered and scored adjective check list for the study of stereotypes. A second impetus was given when in 1947 UNESCO's project on "Tensions Affecting International Understanding" resulted in a number of studies on the nature and distribution of ethnic stereotypes. A third impetus has resulted from growing racial tensions in the United States, giving rise to a specialized body of research on racial prejudice.

The research on ethnic concepts has included work on personality and sociological correlates of unfavorable evaluations of ethnic groups, methods of changing ethnic concepts, and their effect on behavior. This research is summarized by Harding, Proshansky, Kutner, and Chein (1969) for inter-group attitudes and by Brigham (1971) for stereotypes.

However, the bulk of the research has gone into determining the concepts that a particular group of people have about selected ethnic groups that are socially significant in community, national, and international affairs. This work has been considered a basis for understanding inter-ethnic group relations and planning social programs.

This is especially true for children's concepts of ethnic groups. The social significance of establishing knowledge about the nature of children's ethnic concepts has been recognized to lie in the prevention of prejudice and discrimination.

Recognizing that the concepts held by children will vary depending upon the particular cultural milieu that the child lives in, researchers have done cross-cultural studies comparing ethnic concepts (Lambert and Klineberg, 1967), have examined the concepts held by particular national groups (Jahoda, 1962; Vaughan, 1964; Ogunlade, 1972), have investigated the variables of sex and social class (Lambert and Klineberg, 1967), and have traced the change in ethnic concepts over time (Meltzer, 1941). The effect of the social class of the ethnic group being studied has been examined by Epstein and Komorita (1965, 1966).

The development of children's concepts of ethnic groups has also been of important concern. Although no longitudinal studies have been undertaken, cross-sectional studies in which specific age or grade levels have been compared, have suggested that developmental trends do exist in the degree of differentiation of the concepts. In addition, this research appears to indicate that a child's awareness of his own ethnic identity develops first, then that of the ethnic groups within a child's community that he has direct or indirect contact with, and lastly that of ethnic national groups. While exact age levels when these concepts are achieved have been found to vary from decade to

decade, and country to country, the general results are consistent.

The major purpose of this study was to investigate the ethnic concepts of samples of Canadian children at two grade levels, using a semantic differential and an open-ended questionnaire. The concepts investigated were those held by children in grades four and eight of eleven ethnic groups deemed, by the author, to have relevance to the community from which the sample was selected, to Canada, and to international affairs.

CHAPTER II

RELATED RESEARCH AND NEED FOR THE STUDY

I. RELATED RESEARCH

Knowledge about ethnic concepts has come basically from two areas of research: that of general attitude theory, particularly the large body of work on racial prejudice; and that of ethnic and national stereotypes. In general, research within the framework of attitude theory and prejudice has been done by those interested in relations between racial groups within a country, while research concerning stereotypes has been undertaken mainly by those interested in international relations and conceptions of "foreign" peoples.

While these two groups have similar research methods and there are overlapping concerns, they appear to have largely ignored each other. Since the 1960's, however, a growing trend to integrate the findings of the two areas is evident. This can be seen in that the use of the general term "ethnic" has become more frequent in place of "racial" or "national", recognizing that children undoubtedly draw their ethnic concepts from their direct and indirect experience with ethnic groups living within their own countries and also in other lands. The relationship between the development of "home" and "foreign" ethnic concepts has begun to be discussed (Lambert and Klineberg, 1967).

In addition, the researchers working in the area of "stereotypes"

have recently begun to try to clarify the relationship of their work to that concerned with attitudes. A great deal of confusion has existed, and does to this day, in the theory and research about the nature, limits, and operational definition of stereotypes. These difficulties are reviewed by Gordon (1962), and Brigham (1971). Part of this confusion is a controversy over whether stereotypes are related structurally or functionally to attitudes (Allport, 1958; Lay and Jackson, 1972; Gardner, Taylor, and Feenstra, 1970), or whether they are independent of each other (Gardner, Wonnacott, and Taylor, 1968).

The findings of the research on children's development of ethnic concepts reflect the general developmental trends found in relation to concept formation and social development. Harvey, Hunt, and Schroder (1961) and Schroder, Driver, and Streufert (1967) agree that the development of concepts involves both increasing differentiation and more integrated systemizations. Harvey et al. (1961) summarizes the changes in conceptual development with increasing age as follows:

Older children are more abstract than younger in the sense that functioning or perception is less diffuse, less absolutistic, less all-or-none, less stimulus-bound, and more differentiated (pp. 109-110).

In social development, there is a well documented trend away from reliance on and interest in the home and family with increasing age, to that on peer groups and the wider world (Stendler, 1949; Bowerman and Kinch, 1959).

Goodman (1964) has delineated three stages in the development of racial attitudes. The first stage is that of racial awareness of one's own and other racial groups. It has been established that racial awareness can exist as early as three or four years of age (Clark and Clark, 1939; Goodman, 1964). It appears that being a member of a minority group is related to earlier identification of one's own and other's racial identities (Proshansky, 1966). At this age the child seems simply to be aware that he and others have racial identities but to have little understanding of their nature.

The next stage is that of racial orientation occurring between the ages of five and seven or eight. In this stage, children are learning some of the words, concepts, and phrases that their society uses to describe members of other groups. However, they still do not know the full meaning of these ethnic terms, cannot consistently use them correctly, and do not understand the conceptual nature of racial labels or categories. That children between the ages of five and seven are cognizant of the specific nature of their society's evaluations has been found by many studies such as Morland (1958), Stevenson and Stewart (1958), and Goodman (1964).

Goodman's third stage is that of racial attitudes, which appears around seven or eight years of age. The child can now understand the conceptual nature of the racial labels or categories he has learned. Differences appearing between his present attitudes and those of adult are in the degree of differentiation and integration of beliefs,

feelings, and behavioral tendencies.

It should be noted that Goodman's three stages are based on research concerning the American Negro. They have not been confirmed in studies concerning other ethnic groups, although some writers (Proshansky, 1966; Harding et al., 1969) have considered it valid to generalize from Goodman's findings on racial attitudes to ethnic attitudes.

In comparison with concepts of racial minorities living within one's country, concepts of national groups apparently appear quite late. While Lambert and Klineberg (1967) have shown that children of age six can respond appropriately to questions about national groups, research such as Piaget and Weil (1951) and Jahoda (1963) has shown that understanding of the geographical distinction of nation and the concept of nationality does not emerge until around the age of ten. In this regard, Lambert and Klineberg (1967) note that by age ten children have developed a larger repertoire of conceptual categories for thinking about people, have learned appropriate distinctions among geographical units, including nations, and are better able to make precise and diversified differentiations in describing them.

Lambert and Klineberg (1967) also found that six year olds make only obvious factual and non-evaluative statements about foreigners, whereas older children give evaluative descriptions of their personality characteristics. The six year olds did, however, give subjective evaluations of personality characteristics of their own national group. This was interpreted to suggest that children learn stereotyped thinking

about foreign people after they learn the stereotypes of their own nationality.

In comparison with other national groups, research consistently finds that one's own national group tends to be idealized (Lambert and Klineberg, 1967; Kurokawa, 1971). Tajfel, Jahoda, Nemeth, Campbell, and Johnson (1970), in a cross-cultural study, found that there was a greater preference for their own country among the younger subjects of their sample of six to twelve year olds. The finding that this decreased with age was, however, felt likely to be a result of the method used to obtain preference ratings. Meltzer (1941) found preference for one's own national group to be consistent throughout grades four to eight for American subjects.

Changes in the nature of ethnic concepts with increasing age have been subject to some investigation. Increasing differentiation of racial concepts with age was found originally by Blake and Dennis (1943); the elementary school children in the sample tended to view Negroes as generally bad while the high school students viewed them in a more complex way similar to adult stereotypes. Increasing differentiation at a higher age of stereotypes of Negroes, Jews, and Americans was also found by Radke and Sutherland (1949), although their sample viewed the groups as generally favorable at the younger ages.

More recently, the degree of differentiation as reflected in the number of different types of answers, or diversity, has been investi-

gated by Lambert and Klineberg (1967). They looked at the diversity of the type of evaluation as well as the type of descriptive content. It was found that diversity of evaluative statements generally increased from six to ten to fourteen years of age for most national groups. There was also a universal tendency for diversity of descriptive content to increase from six to ten years of age but no consistent trend could be determined between the ages of ten and fourteen. This latter finding was considered to be possibly due to the unreliability of their measure at those age levels.

Lambert and Klineberg (1967) found evaluative and content diversity to be related to the degree of friendliness or favorability towards a national group. It was found that the greater the degree of friendliness, the less evaluative diversity and the greater the content diversity. They concluded that when one is favorable towards a national group, one is well informed about them, but describe them with minimum evaluative references.

Specific age differences in the content of ethnic concepts also have been investigated. While the exact nature of the content of the concept will, of course, be determined by the culture, the types or categories of content (e.g. personality traits, political references etc.) have been found to vary with the age group.

Lambert and Klineberg's (1967) study makes a major contribution in this area. These researchers studied 100 children each at ages six, ten, and fourteen from eleven different nations using a structured interview technique. The children's concepts of their own national

group as well as those of seven "standard reference peoples" (Americans, Brazilians, Chinese, Germans, Indians from India, Negroes from Africa, and Russians) were investigated. A content analysis using two scoring systems was carried out: one categorized the evaluations inherent in the statements; the other emphasized the type of content referred to in the child's descriptions. In addition, the foreign peoples that were seen as similar and different, desirable and undesirable were investigated.

The content analysis revealed that when describing both their own national group and the reference groups, references to physical features generally decreased in importance with age, while personality traits, political issues, and habits became more dominant descriptive themes. In addition, the younger children used clothing and language categories whereas the older ones referred to religious aspects and material possessions. Other studies have found similar trends. Meltzer (1941) found a steady increase with age in the use of five adjectives and a steady decrease in age (from fifth to eighth grade) for seven different responses. For example, as in Lambert and Klineberg's (1967) study, responses concerning physical appearance decreased from the fifth to the eighth grade.

Another age difference found by Lambert and Klineberg (1967) was that at six years of age, children stressed differences much more than similarities compared to the older children. In addition, the six year olds appeared to be generally suspicious of foreigners while the ten year olds were the most friendly and inquisitive about foreign peoples.

Finally, it was found that six year olds responded less frequently in describing the reference groups than the children at the other age levels.

Canadian research on children's ethnic concepts appears to be limited to four studies. Lambert and Klineberg's (1967) study, previously mentioned, included an English Canadian and a French Canadian sample from Montreal. The results concerning the English Canadian sample are consistent with the general age trends found for evaluative and descriptive content. Besides increasing use of personality traits with age, other differences between age groups in describing Canadians occurred in the descriptive content categories most frequently used: six year olds focused on physical descriptions and language; ten year olds referred to material possessions, language, occupation, and habits of living; fourteen year olds referred to politics and habits of living. In describing the reference groups, the descriptions at all age levels were non-evaluative, predominantly involving references to similarities and differences. Specific descriptive categories used were physical, language, and geographical descriptions at ages six and ten; and at age fourteen, personality traits for all reference groups, with political references important for Russians.

The investigation of the diversity of the answers found that the English Canadians had greater content diversity but less evaluative diversity compared to other national groups. As for the general trends, ten year olds were found to be the most friendly towards the other national groups.

The national groups the English Canadians considered to be most different from themselves were the Chinese and Africans (for ten year olds), and Russians (for fourteen year olds). The American, British, and Scottish were found to be considered most similar by the ten year olds; the Americans, British, and Australians were considered most similar by the fourteen year olds.

The most desirable nationalities for both ten and fourteen year olds were American and British. Most undesirable nationalities were Russians, Germans, Africans, and Indians (for ten year olds); Russians and Germans, to a lesser extent, (for fourteen year olds). Reasons for their choices included geographical characteristics (ages six, ten, and fourteen), personality traits (ages ten and fourteen), material possessions and language (age ten). Politics were included by ten and fourteen year olds as a reason for those groups seen as undesirable.

Two other studies, using Canadian samples have looked at the evaluative nature (favorable-unfavorable) of children's concepts of ethnic groups, as well as correlates of their findings.

Hubert (1969) studied grade four, five, and six students with a view to determining attitudes of non-Indian children toward Indian children in an integrated school setting, and of assessing the relationship between knowledge and attitude. Using a seven point scale semantic differential for testing attitudes, the concepts "Indian", "Friend", "Negro", "White Man", and "Savage" were examined. It was found that more favorable attitudes were held toward white men than towards

Indians, and that more favorable attitudes were held towards Indians than towards Savages. No grade differences were found in the concept of "Indian".

Chabassol (1970) tested students in grades eight through twelve using the questionnaire originally used by Radke-Yarrow and Miller (1949) in the United States. Attitudes towards Canadians, French-Canadians, Jews, and Negroes were assessed and the results were that Canadians were generally evaluated most favorably, then Negroes, French-Canadians, and Jews. Chabassol (1970) also looked at some personality correlates (anxiety, self-rejection, and dogmatism) of the degree of favorability-unfavorability of the attitudes expressed. A tendency to withhold judgement (refusing to answer on the grounds that not enough was known about them) was noted that decreased with age; this was attributed to increasing general knowledge. A similar finding was found by Gilbert (1951) using an adjective check list with college students who interpreted it to indicate resistance to the stereotyping tendency. A replication of this study (Karlins, Coffman, and Walters, 1969) found that this tendency had faded in subsequent years.

A fourth study (Saruk and Gulutson, 1970) determined that cultural orientation of high school students was related to different concepts of Ukrainian and English Canadians as measured by a semantic differential. This finding was, however, incidental to the main research questions, and the specific concepts were not elaborated upon.

The methodology used in the study of ethnic concepts has come under considerable discussion in recent years. Most of the research on ethnic

stereotypes has used the Katz and Braly (1933) paradigm of the adjective check list. This has come under criticism on a number of grounds (Brigham, 1971; Gardner, Wonnacott, and Taylor, 1968). One criticism is that it does not allow for individual differences in the degree to which specific traits are ascribed to the group in question. Less structured techniques, such as interviews, story-writing, and sentence-completion tasks, used in studying ethnic stereotypes and attitudes (Heindel, 1937; Monjar, 1937; Kerr, 1943; Chabassol, 1970) have the advantage of not influencing the stereotype or attitudes that exist to the same extent but do not lend themselves easily to statistical analysis. Klineberg (1954) in his review of the area recommends that at least two different methods be employed in any study of ethnic concepts.

Recently, a few studies concerned with ethnic concepts (Lay and Jackson, 1972; Gardner et al, 1968; Hubert, 1969; Saruk and Gulutson, 1970) have utilized the semantic differential technique devised by Osgood, Suci, and Tannenbaum (1957). This technique differentiates the meaning of a concept using a rating scale between selected adjective-pairs that are opposite in meaning. The direction and intensity of the meaning of the concept along selected dimensions can be ascertained. The semantic differential has been used to research such phenomena as attitudes, mass communication, and personality traits; this research has been summarized by Osgood et al. (1957). The semantic differential has also been used in cross-cultural studies

to compare the similarity of concepts of people of different cultures (Osgood, 1962) and to differentiate high and low ethnocentric individuals (Suci, 1952). It has the advantage of lending itself to rigorous statistical analysis. Although the dimensions to be studied are pre-determined as with an adjective check list, it allows for more differentiation than the latter. It is also less likely to be misinterpreted as giving a "complete" picture of the ethnic concept as fewer adjectives are usually selected for use.

This review of the literature indicates, in the first place, that children can and do hold distinct concepts of ethnic groups, and that changes in terms of the degree of differentiation and the type of content occur with age. Lambert and Klineberg (1967) postulate the following reasons for the developmental trends found:

- i) increased conceptual and linguistic skill in describing people.
- ii) increased interest in, and understanding of, the more complex and subtle features of their own emotional makeup as well as that of their social worlds.
- iii) changes in the ways they view themselves and members of their own national group.
- iv) changes in the standard information sources they use to learn about foreigners (six year olds cite people, whereas fourteen year olds relied on the mass media, [Lambert and Klineberg, 1967]).
- v) increased awareness of social pressure to express themselves in commonly used terms that are easily understood and accepted by their peer groups.

Secondly, the research indicates that by about age ten, ability to conceptualize nationality is developed, and that by about age fourteen, ethnic stereotypes and attitudes are similar to adults. These would seem, therefore, appropriate age groups to include for study; in addition, use of these age groups would provide some basis for comparison with Lambert and Klineberg's (1967) study.

Finally, the research methods that have been most useful are interview and questionnaire procedures, and more structured techniques that allow for differentiation such as the semantic differential. As suggested by Klineberg (1954), a combination of these techniques would provide the advantages of both methods and serve to compensate for each other's disadvantages.

II. NEED FOR THE STUDY

Considering the growing significance of ethnic relations in Canada in recent years it is remarkable that so little investigation of Canadian concepts of other ethnic groups has been undertaken. The almost complete absence of studies concerned with children's concepts of ethnic groups is particularly noteworthy; as previously mentioned, only four studies appear to be in existence (Hubert, 1969; Chabassol, 1970; Lambert and Klineberg, 1967; Saruk and Gulutson, 1970). As Chabassol (1970) points out, it is necessary in most cases to extrapolate from American studies or do without.

Two of the studies done in Canada (Hubert, 1969; Chabassol, 1970) were designed to provide information about specific minority groups that were considered to be discriminated against within Canada or within other countries. The third study done (Saruk and Gulutson, 1970) was not concerned with the ethnic concepts per sé of the ethnic groups studied, but rather with the effect of cultural orientation on academic performance; the effect of cultural orientation on ethnic concepts was incidental to the study and mentioned only briefly. The fourth study done (Lambert and Klineberg, 1967), using an interview method, was part of a cross-cultural investigation of children's concepts of foreign peoples; the ethnic groups chosen for study were not necessarily relevant to our present Canadian population.

There is a need for more information about the nature of children's concepts of the various ethnic groups they live with daily, as well as others considered to be socially significant nationally and internationally. In addition, although the more unstructured interview and questionnaire techniques are fruitful in providing a wealth of information, there is also a need for more use of structured techniques capable of being subjected to statistical analysis. Their use is particularly important in this socially controversial area to help overcome the biases held by the researcher.

III. RESEARCH QUESTIONS

The questions that this study investigated are the following:

- i) Do children have distinct concepts of ethnic groups?
- ii) Do these concepts change with the grade of the child?
- iii) What are the children's concepts of specific ethnic groups?

To investigate the first two questions, a semantic differential with twelve sets of adjective-pairs was used. The ratings given by grade four and eight students to each of the ethnic concepts were analyzed using a two factor analysis of variance. To investigate the third question, trends in the use of specific adjectives on the semantic differential were examined, and the answers given to an open-ended questionnaire were content analyzed.

IV. DEFINITIONS OF TERMS

The following are definitions of the terms used in this study.

Ethnic concept. Definitions of the word "concept" vary from those which emphasize the common usage of "general idea" to those which more technically delineate the structure and content of the idea (Gould and Kolb, 1964). As used in this study, ethnic concept is defined as the ratings obtained on the specific adjective-pairs of the semantic differential, and as the content categories of the open-ended questionnaire.

Ethnic group. An ethnic group denotes a social group which within a larger cultural and social system is delineated by common cultural

traits, national or geographical origin, or physical characteristics (Gould and Kolb, 1964). As such it is being used in this study to refer to both the children's own national group, Canadian, as well as to persons of other backgrounds who form sub groups within Canada, or live in other lands.

Ethnic contrasts. These are the specific combinations of ethnic concept ratings on a semantic differential adjective-pair which are significantly different from each other.

Major shift. A difference of $\pm 5\%$ or more in the use of a content category on the questionnaire by grade four students in comparison with grade eight students.

Major category. A content category receiving 10% or more of the responses in grade four or eight on the questionnaire.

CHAPTER III

THE METHOD

I. THE SAMPLE

The sample was obtained from students attending both public and separate schools in St. Albert, a community outside of Edmonton. Every grade four and eight class within these two school systems was included in the study with the exception of one grade eight class in the public school system. This was done in order to keep the proportions of grade four and eight students from the two systems roughly the same. All the students attending school on the day of testing were included in the study. The number of subjects in each school system and grade is shown in Table 1. Two of the subjects' questionnaires in a public grade four class had to be rejected as they were incomplete, making the final number of test protocols scored 536.

II. SELECTION OF THE ETHNIC GROUPS

It was decided to include for investigation the most populous ethnic groups residing in Alberta. In order to determine these, the latest Canadian Census available at the time (1961) was used. Considering the different criteria used in classification of the population by the Canada Census, it was felt that the most relevant definition of ethnicity was which ethnic or cultural group a person or his ancestors

TABLE 1
Sample Size by School System and Grade

School System	Grade 4	Grade 8	Total
Separate	163	132	295
Public	130	113	243
Total	293	245	538

TABLE 2
1961 Alberta and St. Albert Census Figures

Ethnic Group	Alberta	St. Albert
British	601,755	1,645
-English	282,964	not given
-Irish	134,102	not given
-Scottish	165,942	not given
French	83,319	1,142
German	183,314	416
Ukrainian	105,923	151
Dutch	55,530	186
Norwegian	42,305	not given
Polish	40,539	123
Total	1,331,994	4,059

(traced through his father's side) belonged to on coming to this continent.

According to the 1961 Census, nine ethnic groups only number 40,000 people or more out of Alberta's total population of 1,331,944 persons. These constitute 76% of Alberta's population; none of the ethnic groups numbering less than 40,000 made up a significant proportion of the remaining 24%. All these ethnic groups were included in the study. It was decided, however, to include the English, Irish, and Scottish as British in order to enable a broader spectrum of ethnic concepts to be tested within a reasonable length of time. The numbers of these ethnic groups in Alberta, and their numbers, where known, residing in St. Albert, are presented in Table 2.

In addition to these seven ethnic groups, it was decided to include three other groups who were considered by the author to be socially significant within Canada or internationally: Canadian Indian, American, and Russian. Finally, the concept "Canadian" was included to make a total of eleven ethnic groups whose concepts were being investigated.

III. THE INSTRUMENTS

a) The Semantic Differential

The semantic differential technique devised by Osgood, Tannenbaum, and Suci (1957) has become a widely accepted instrument for use with adults. While not as frequently used with children as with adults, it has been used in children's research to study as diverse topics as sex roles (Kagan, Hosken, and Watson, 1961), children's and adult's concepts (Maltz, 1963), changes in evaluations (DiVesta, 1962; DiVesta and Stover, 1962), and psychological effects of disability and institutionalization on growth and development (Downing, Moed, and Wight, 1961). These and other studies (Ervin and Foster, 1960; Pollio, 1964), although testing children as young as six years old, used the adjectives and factors given in the Measurement of Meaning (Osgood et al., 1957) which are derived from work with adult subjects. DiVesta (1964a, 1964b, 1965) reports on a series of studies that have established the adjectives which are commonly used by children. A later study (DiVesta, 1966) confirmed that the evaluative, activity, and potency factors commonly found in adult studies are also found in factor analysis of ratings of concepts by children in grades two to seven.

DiVesta and Dick (1966) investigated the test-retest reliability of the semantic differential with children in the same grades using a seven point scale and Osgood et al.'s (1957) instructions. The semantic differential was found to be reliable from the third grade especially when group means were used rather than individual scores and especially

for the evaluative, potency, and activity factors. Extrapolation from their results suggested that the reliability of concept scores of children would approach those obtained for adults if 15 to 20 subjects were used in the rating procedures. The coefficients of correlation between immediate test-retest scores of groups on the evaluative, potency and activity dimensions ranged between .73 and .94 for grade four to seven students.

A number of modifications have been made from the traditional form by Osgood et al. (1957) by those using the semantic differential with children. Most commonly, a five point scale is used in place of a seven point scale to simplify the task for younger children (Maltz, 1963), and more graphic and explicit instructions are used (Maltz, 1963; DiVesta, 1966).

For this study, a five point scale was chosen for use. Twelve bipolar adjective-pairs were selected to represent the activity, potency, evaluative and other factors found in DiVesta (1966). Although the order of the adjective-pairs was constant for all the children, positive and negative poles were alternated. The children responded to the twelve adjective-pairs eleven times in all, once for each of the ethnic concepts being considered. The order of presentation of ethnic concepts was randomized. Instructions to the students were adapted from Osgood et al. (1957) and included a practise session on an unrelated concept. An example of the instructions and test protocol is included in Appendix A.

b) The Open-ended Questionnaire

The children were asked to answer in writing what they thought each of the eleven ethnic concepts were. A very general question was asked (What is a German, American, etc.) in order not to influence the types of answers given. An example of the test protocols and instructions is included in Appendix A.

A pilot study with ten children in grade four was done to ensure that the instructions and format for the semantic differential and questionnaire were appropriate for that age group.

IV. DATA COLLECTION

The data were collected over a one week period in May, 1971. The children were tested in their class groups and all the children in one school were tested as closely together in time as possible to avoid contamination of the results from discussion at recess or lunchtime. The testing was confined in length to one class period to conform to a request by the schools. This necessitated the semantic differential being presented before the questionnaire as other data were being collected in conjunction with this study. The same instructions were followed in each class. Trained assistants were present in most cases to help answer individual questions and to help the grade four students with their spelling when this was requested. Care was taken not to influence the answers that the children might give, but simply to explain the tasks to those children having difficulty. The protocols

were reviewed for omitted items when the children handed them in, and the children requested to complete these.

V. ANALYSIS

a) The Semantic Differential

A score of one to five was assigned to each rating received on the adjective-pairs. These ratings were then analyzed using a two-factor analysis of variance with repeated measures (Winer, 1962). In this way it could be ascertained whether or not the grade level and ethnic concepts were significant variables for each of the adjective-pairs. The specific ethnic concepts for which the differences between grades were significant were determined for each adjective-pair with the use of the Scheffé method of testing differences between the combinations of means (Winer, 1962). The Scheffé analysis was also used to determine the specific combinations of ethnic concepts that were significantly different from each other. This was done both for the pooled scores, and for each grade individually.

b) The Open-ended Questionnaire

The open-ended questionnaire was analyzed using a method of content analysis adapted from that used by Lambert and Klineberg (1967). The answers of a random selection of classes that constituted approximately 50% of the sample ($n=299$) were analyzed. Twenty-one content categories were derived and descriptions drawn up of each. The first three responses that could be scored in answer to one of the questions were

included. The vast majority of children gave only one scorable answer per ethnic concept; only a very small percentage gave more than three scorable answers.

The answers that the children gave were printed on individual cards and were sorted into content categories by independent judges. The judges were persons with some training in objective classification through their training as psychiatric nurses or psychologists. For those items that could not be agreed on by two out of three judges, a further two judges were employed and agreement of three out of the five judges became the criterion for classification in a content category. The instructions to the judges and descriptions of these twenty-one content categories are in Appendix B.

In addition to these twenty-one content categories rated by the judges, five others were used in the final scoring as follows:

- i) race- any use of the word "race" was given a separate scoring.
- ii) nationality- any use of the words "nationality" or "citizenship" was given a separate scoring.
- iii) ancestry- any specific reference to ancestry was given a separate scoring.
- iv) no agreement- those responses for which no agreement on classification could be reached by three out of five judges.
- v) don't know- answers indicating inability to respond because of ignorance of what the word meant or what the group was.

The use of these categories was arbitrary so that it was not necessary to include them in the judges' categories for classification

purposes. The unscorable category was extended to include, besides those answers classified by the judges to be unscorable, a repetition of ethnic name as a response, a completely incorrect answer, and those few instances where no answer was given. A complete list of all content categories and the abbreviations used to denote them is presented in Table 3.

Two measures obtained from this data were:

- i) the percentage of the number of answers given by each grade level to every ethnic concept out of the total possible number of answers (three answers per person per ethnic group).
- ii) the percentage of the number of answers given in each content category out of the total number of scored answers for that ethnic group for each grade.

Because the semantic differential was given before the questionnaire, an account was kept of the number of times each adjective of the semantic differential was used by each grade in reference to each ethnic concept.

TABLE 3

Content Categories and Abbreviations

lang.	- language
rel.	- religion
occ.	- occupation
pol.	- political
hab.	- habits of living
hist.	- historical
s.p.	- current social problems
o.c.b.	- other cultural-behavioral characteristics
s.l.	- standard of living
food	- food
clo.	- clothing
o.c.m.	- other cultural-material characteristics
phys.	- physical description
pers.	- personality trait
int.	- intellectual trait
o.p.c.	- other personal characteristics
eval.	- evaluative
slang	- slang
geog.	- geographical
peop.	- people
nat.	- nationality
anc.	- ancestry
race	- race
n.a.	- no agreement
d.k.	- don't know
uns.	- unscorable

CHAPTER IV

RESULTS

I. SEMANTIC DIFFERENTIAL

The mean ethnic scores on each adjective-pair were obtained for each ethnic concept and were organized in two different ways: i) according to ethnic group and ii) according to adjective pair. These are presented as bar graphs in Appendices C and D respectively. The original scaling of one to five, used in the statistical analysis, has been altered on these Figures to use zero as a mid-point (instead of three) and minus two and plus two as the ends of the continuum (instead of one and five respectively); this was done for descriptive purposes. Throughout the following, a "less extreme rating" refers to one which is closer to zero than another rating but on the same side of the mid-point as it. A "change in direction" refers to use of the positive scale in comparison with a rating on the negative scale or vice versa.

A two factor analysis of variance (two grade levels by eleven ethnic concepts) with repeated measures on the latter factor (Winer, 1962) was computed for each of the twelve sets of adjective-pairs of the semantic differential ratings. A significance level of .05 was established. The levels of significance found on this analysis are presented in Table 4; the results of the analysis of variance are included in Appendix E.

TABLE 4

Summary of Two Way Analysis of Variance with Repeated
Measures (Grade x Ethnic Concept) for Twelve Adjective-pairs

	Little big	slow fast	frien. unfr.	weak strong	clean dirty	heavy light	first last	pretty ugly	happy sad	quiet loud	wise fool.	good bad
Grade	**	**	**	**	**	**	**	**	**	**	**	**
Ethnic Concept	**	**	**	**	**	**	**	**	**	**	**	**
Interaction (Grade x Ethnic Concept)	**	**	**	**	**	**	**	**	*	**	**	*

Key: * - $p < .05$
** - $p < .001$

Examination of Table 4 reveals the following:

- i) that all the differences between ratings on the adjective-pairs of the grade four and grade eight students are significant ($p < .001$) with the exception of the differences between grades in rating of "little-big" ($p > .05$).
- ii) that all the differences between the ethnic concepts are significant for all the adjective-pairs ($p < .001$).
- iii) that the degree of change between grades of the ethnic concepts differs significantly for all the adjective-pairs ($p < .05$).

Since most of the differences between grades were significant, and all differences between ethnic concepts were also significant, the Scheffé analyses (Winer, 1962) were carried out. A significance level of .05 was established. Three separate Scheffé analyses were computed:

- i) to determine for each adjective-pair the specific ethnic concepts which were rated differently by the two grades. These results are contained in Appendix F.
- ii) to determine the specific combinations of ethnic concepts that were different from each other using pooled grade scores; the results are contained in Appendix G.
- iii) to determine the specific combinations of ethnic concepts that were different from each other for each grade; refer to Appendix H for the results concerning grade four, and to Appendix I for those concerning grade eight.

The results of the analyses of variance, the Scheffé analyses, and trends found in the use of the adjectives, have been summarized for purposes of clarity into the following four sections:

- i) general differences between grades.
- ii) general differences between ethnic concepts.
- iii) differences between ethnic concepts for each grade.
- iv) changes between grades for each ethnic concept on the specific adjective-pairs.

a) General differences between grades

The ethnic concepts for which the differences between grades were significant for each adjective-pair are presented in Table 5. Although the difference between the students' ratings on the adjective-pair "little-big" was not significant when considered over all the ethnic concepts, it was significant for three of the ethnic concepts. The adjective-pairs "weak-strong", "wise-foolish", and "good-bad" received different ratings from the two grade levels for the greatest number of ethnic concepts. The difference in the ratings of the two grades for "friendly-unfriendly" was significant for only one ethnic concept.

It can also be seen from Table 5 that significant differences between grade ratings occurred on the greatest number of adjective-pairs for the ethnic concept "Ukrainian". This concept, plus French, American, and Canadian Indian changed significantly on half, or more, of the adjective-pairs. There were no significant grade differences

TABLE 5

Ethnic Concept for which Differences between Grades are Significant

Adj.-pair	Ethnic Concept										Total	
	Ger	Am	Fr	Nor	Pol	Br	Russ	Dut	C.I.	Uk		
little -												
big		*					*		*	*	3	
slow -												
fast	*				*				*	*	4	
friendly -												
unfriendly		*									1	
weak -												
strong		*		*	*				*	*	5	
clean -												
dirty		*	*						*	*	4	
heavy -												
light		*								*	2	
first -												
last		*		*					*	*	4	
pretty -												
ugly		*					*		*	*	3	
happy -												
sad	*	*							*	*	4	
quiet -												
loud		*	*								2	
wise -												
foolish	*	*	*						*	*	5	
good -												
bad		*	*		*			*		*	5	
Total	3	7	8	0	4	1	2	1	6	9	1	42

* - level of significance less than .05

occurring for Norwegian, and only one significant change for British, Dutch, and Canadian.

The nature of the significant grade differences is presented in Table 6; they were obtained from Appendix D. Most of the significant differences were due to less extreme ratings given by the grade eight students (24 out of 42 instances).

A difference between the grade levels in the use of both directions of the scale (plus and minus) is evident in Table 7; the grade eight students tended to use both directions of the scale to a greater extent than the grade four students in rating the ethnic concepts on an adjective-pair.

b) General differences between ethnic concepts

It will be recalled that the particular combinations of ethnic concepts which were significantly different from each other have been referred to as ethnic contrasts. The number of ethnic contrasts for each ethnic concept by adjective-pair is summarized in Table 8. For example, there are six ethnic concepts that were significantly different from the concept "German" on the adjective-pair "little-big". This has been determined from examination of the probability levels of Table 39 in Appendix G.

It is evident from Table 8, that in only five instances was an ethnic concept significantly different from all the other ethnic concepts: Canadian on "friendly-unfriendly", "pretty-ugly", and "happy-

TABLE 6
Significant Changes Between Grades for Each Ethnic Concept

Ethnic concept	Adj. used by Grade 8		Nature of Change Compared with Gr. 4	
			less extreme	more extreme
German	slow	*		
	happy	*		
	wise	*		
American	friendly	*		
	clean	*		
	pretty	*		
	happy	*		
	loud		*	
	wise	*		
	good	*		
French	little		*	
	strong	*		
	clean	*		
	light			*
	last			*
	loud		*	
	wise	*		
	good	*		
Norwegian	no significant changes			
Polish	slow			*
	strong	*		
	last			*
	good	*		
British	strong	*		
Russian	big		*	
	ugly			*
Dutch	good	*		
Canadian	fast	*		
Indian	strong	*		
	dirty			*
	sad			*
	wise	*		
	last			*
Ukrainian	little		*	
	slow			*
	weak			*
	clean	*		
	last		*	
	ugly			*
	happy	*		
	foolish			*
	good	*		
Canadian	heavy	*		
Total		24	6	12

TABLE 7

Use of Both Directions
of Semantic Differential Scale

Adjective-pair	Both directions used	
	Grade 4	Grade 8
little-big	*	*
slow-fast		*
friendly-unfr.		
weak-strong		*
clean-dirty		*
light-heavy		*
first-last	*	*
pretty-ugly		*
happy-sad		*
quiet-loud	*	*
wise-foolish		*
good-bad		

TABLE 8

Number of Ethnic Contrasts
for Each Ethnic Concept by Adjective-pair

Adjective-pair	Ethnic Concept												Total
	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.		
little-big	6	6	6	6	6	6	5	6	5	7	7	66	
slow-fast	5	6	4	4	6	5	5	6	8	8	9	66	
friendly-unfriendly	8	5	5	4	5	5	8	9	8	5	10	72	
weak-strong	5	6	7	5	6	5	6	5	9	9	7	70	
clean-dirty	5	5	6	5	5	5	8	8	10	8	9	74	
heavy-light	5	4	5	2	5	0	5	5	4	5	4	44	
first-last	4	8	4	4	4	8	4	4	3	10	9	62	
pretty-ugly	7	5	5	5	5	5	7	6	8	7	10	70	
happy-sad	5	6	6	5	5	3	6	7	9	6	10	68	
quiet-loud	5	5	4	7	4	3	10	8	3	3	4	56	
wise-foolish	6	3	2	4	3	4	5	4	4	8	9	52	
good-bad	8	4	4	5	4	4	8	5	6	5	9	62	
Total	69	63	58	56	58	53	77	73	77	81	97		

sad"; Ukrainian on "first-last"; Russian on "quiet-loud". In only one instance was an ethnic concept not significantly different from any other ethnic concept: British on "heavy-light". Consideration of the total number of significant contrasts for each ethnic concept indicates that the greatest number of ethnic contrasts occurred for Canadian, and then for Ukrainian, Russian and Canadian Indian. The adjective-pair for which most ethnic contrasts occurred was "clean-dirty".

c) Differences between ethnic concepts for each grade level.

A summary of the number of ethnic contrasts occurring by grade level for each ethnic concept on every adjective-pair is presented in Table 9. Comparison of the two grades indicates that the grade eight students generally made more ethnic contrasts than the grade four students. This was true for every adjective-pair but "good-bad" where grade four students made more ethnic contrasts, and "heavy-light" and "slow-fast" on which both groups made an equal number of contrasts.

For both grade levels, the lowest number of significant ethnic contrasts occurred on "heavy-light". For grade four students, the adjective-pairs for which the most number of ethnic contrasts occurred were "pretty-ugly" and "slow-fast"; for grade eight students these adjective-pairs were "little-big", "clean-dirty", and "pretty-ugly".

At the grade four level, the ethnic concepts having the greatest number of ethnic contrasts were Canadian, and Canadian Indian; for grade eight students they were Canadian, and Ukrainian. For both

TABLE 9

Number of Ethnic Contrasts by Grade Level
for Each Ethnic Concept on Each Adjective-pair

* [Key: Grade 4
Grade 8]

Adjective-pair	little-big	Ethnic Concept												Total
		Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.	Total	
slow-fast	4 4	4 3	3 4	3 3	3 8	4 3	4 3	6 4	8 5	7 9	8 9	8 8	54 54	
friendly-unfriendly	8 5	3 3	3 3	3 4	3 4	3 4	8 7	3 6	3 5	3 3	8 8	8 8	48 52	
weak-strong	2 2	4 3	2 5	2 2	3 4	3 4	2 5	4 4	9 6	6 8	5 5	5 5	42 48	
clean-dirty	3 4	2 4	4 4	2 5	2 4	2 3	6 5	4 7	8 10	4 7	5 7	5 7	42 60	
heavy-light	4 4	0 1	0 3	2 0	3 2	0 1	0 5	3 2	2 0	2 2	4 0	20 20		
first-last	3 4	4 8	2 4	1 3	2 4	2 6	3 3	3 4	5 4	5 10	8 8	8 8	38 58	
pretty-ugly	4 3	5 4	3 4	5 5	2 4	3 4	4 7	5 5	7 7	6 7	10 10	10 10	54 60	
happy-sad	3 4	4 2	1 2	2 3	2 3	1 2	2 3	2 5	6 9	2 2	7 7	7 7	32 42	
quiet-loud	2 3	1 6	2 3	2 7	1 4	1 3	8 7	4 8	1 4	1 4	1 3	1 3	24 52	
wise-foolish	2 4	2 2	1 3	1 2	1 2	1 2	5 3	2 4	3 2	4 9	6 7	6 7	28 40	
good-bad	8 4	3 2	3 1	3 4	4 3	2 1	7 4	3 5	5 3	3 3	7 8	7 8	48 38	
Total	46 44	37 44	27 43	29 43	30 47	25 38	52 58	45 59	62 59	49 72	76 77			

grade levels, the fewest number of ethnic contrasts occurred for the concept "British". In addition, for both grade levels, the only ethnic concept which was significantly different from all the other ethnic concepts was Canadian on the adjective-pair "pretty-ugly". In grade eight, Norwegian, Canadian Indian, and Canadian were not significantly different from any other ethnic concept for the adjective-pair "heavy-light". The same is true in grade four for American, French, British, and Russian on "heavy-light".

The ethnic concept(s) receiving the most extreme rating(s) in comparison with the other ethnic concepts for each adjective-pair was (were) ascertained by taking the ethnic concept with the most extreme score in each direction of the scale and those within $\pm .10$ scale points; these are the peak scores found in Appendix E. This criterion was considered to be most accurately descriptive of the data. These peak or extreme scores are summarized for each grade level in Table 10.

It is evident from Table 11 that the greatest percentage of peak scores for both grades were given to Canadian; the grade four students gave Canadian 15% more peak ratings than did the grade eight students. The next greatest percentage of peak ratings was given by grade four students to the ethnic concepts "Canadian Indian" and "Dutch", and by grade eight students to the concepts "Ukrainian" and "Russian".

The adjective(s) receiving the most extreme rating(s) in comparison with the other adjectives for each ethnic concept was (were) also ascertained by the same method (the most extreme rating for both directions of the scale and any within $\pm .10$ scale points). These are the

TABLE 10

Ethnic Concepts Receiving the Most Extreme Score(s)
on Each Adjective

Adjective	Grade Four	Grade Eight
big	Canadian	American, Russian, Can.,
little	Ukrainian, Dutch	Ukrainian, French
slow	_____	Ukrainian
fast	Canadian, Can. Indian	Canadian
friendly	Canadian	Canadian
unfriendly	_____	_____
weak	_____	Ukrainian
strong	Canadian Indian	Can. Ind., Canadian, Russian
clean	Canadian, Dutch	Canadian, Dutch
dirty	_____	Can. Indian
light	_____	French, Dutch, Ukrainian
heavy	Ger., Am., Br., C.I. Canadian	German, Russian
first	Canadian	Canadian
last	Ukrainian	Ukrainian
pretty	Canadian	Canadian
ugly	_____	Ukrainian, Can. Ind., Russian
happy	Canadian	Canadian
sad	_____	Canadian Indian
quiet	Dutch, Norwegian	Dutch, Norwegian
loud	Russian	Russian, American
wise	Canadian	Canadian
foolish	_____	Ukrainian
good	Canadian	Canadian
bad	_____	_____

TABLE 11

The Percentage of Extreme
Scores Received by Each Ethnic Concept

Ethnic Group	Grade 4	Grade 8
Germans	4.3	2.9
Americans	4.3	5.7
French	—	5.7
Norwegian	4.3	2.9
Polish	—	—
British	4.3	—
Russian	4.3	14.3
Dutch	13.0	8.6
Canadian Indian	13.0	11.4
Ukrainian	8.7	20.0
Canadian	43.5	28.6
Total	99.7	100.1

peak scores evident in Appendix C. The adjectives receiving extreme ratings for each ethnic concept by grade level are presented in Table 12. The ethnic concepts for which each adjective was given an extreme score compared to other adjectives are summarized in Table 13. "Strong" was used as a most extreme score for all of the ethnic concepts in grade four, and for nine of the ethnic concepts in grade eight. The adjective "friendly" was also given many peak scores by both grades. The grade four students gave their highest ratings to only seven adjectives in describing the ethnic concepts in comparison to twelve adjectives used by the grade eight students.

d) Changes between grades for each ethnic concept

The ethnic concept(s) that show(ed) the greatest degree of change between grades are summarized for each adjective-pair in Table 14. These were determined by taking the ethnic concept whose rating changed the most scale points between grades four and eight in either direction, and including those within $\pm .10$ of it. Again, this method was chosen as being most descriptive of the data. The nature of these changes is summarized in Table 15. For each ethnic concept, the adjective used in grade eight is shown as well as whether the grade eight rating was less extreme or more extreme within the same direction of the scale, or was a change in direction, in comparison with the grade four rating. It is evident from Table 15 that American and Ukrainian were the ethnic concepts that had the greatest degree of change for the most number of adjective-

TABLE 12

Adjective(s) Given the Most Extreme
Score(s) for Each Ethnic Concept in Each Grade

Ethnic Concept	Grade Four	Grade Eight
German	strong, happy, clean	big, friendly, strong, clean, heavy, quiet
American	fast, friendly, strong, happy	big, fast, strong, first, happy, loud
French	fast, friendly, strong, happy, clean	friendly, happy, loud,
Norwegian	friendly, strong, happy	friendly, strong
Polish	friendly, strong, clean good	friendly, strong, last
British	friendly, strong, happy, clean	fast, friendly, strong
Russian	strong, happy	strong, happy, loud
Dutch	friendly, strong, clean	friendly, strong, clean
Can. Ind.	strong, wise	friendly, strong, wise
Ukrainian	friendly, strong	last, friendly
Canadian	fast, friendly, strong	fast, friendly, strong

TABLE 13

Ethnic Concepts for Which Each Adjective Received an Extreme Score

Adjective	Grade Four	Grade Eight
big	-----	Ger., Am..
little	-----	-----
slow	-----	-----
fast	Am., Fr., Can.	Am., Brit., Can.
friendly	Am. , Fr., Nor., Pol., Brit., Dut. , Uk., Can.	Fr., Nor., Pol., Br., Dut. , Can. Ind., Uk., Can. , Ger.
unfriendly	-----	-----
weak	-----	-----
strong	Ger., Am., Fr., Nor., Pol., Br., Rus., Dt., C.I. , Uk., Can.	Ger., Am., Nor., Pol., Br., Russ., Dut., C.I. , Can.
clean	Ger., Fr., Pol., Brit., Dut.	Ger., Dut.
dirty	-----	-----
light	-----	-----
heavy	-----	Ger.
first	-----	Am.
last	-----	Pol., Uk.
pretty	-----	-----
ugly	-----	-----
happy	Ger., Am., Fr., Nor., Br., Russ.	Am., Fr., Russ.
sad	-----	-----
quiet	-----	Ger.
loud	-----	Am., Russ., Fr.
wise	Can. Ind.	Can. Ind.
foolish	-----	-----
good	Pol.	-----
bad	-----	-----

TABLE 14

Ethnic Concepts for which the Greatest Degree of
Change Occurred between Grades for Each Adjective-pair

Adjective-pair	Ethnic concepts changing most
little-big	Russian French Ukrainian
slow-fast	Polish Ukrainian
friendly-unfriendly	American
weak-strong	Ukrainian Canadian Indian French
clean-dirty	Canadian Indian Ukrainian American
light-heavy	French Canadian British
first-last	Ukrainian Canadian Indian
pretty-ugly	Russian American Ukrainian
happy-sad	American Canadian Indian
quiet-loud	American
wise-foolish	Ukrainian Canadian Indian American
good-bad	American Ukrainian

TABLE 15

Greatest Degree of Change between Grades

Ethnic Concept	Adjective used by Grade 8	n o c h a n g e s	Nature of change as compared with grade 4
			less extreme more extreme change in direction
German			
American	friendly	*	
	pretty	*	
	happy	*	
	loud		*
	wise	*	
	good	*	
	clean	*	
French	little		*
	light		*
	strong	*	
Norwegian		n o c h a n g e s	
Polish	slow		*
British	heavy	*	
Russian	ugly		*
	big		
Dutch		n o c h a n g e s	
Canadian	strong	*	
Indian	wise	*	
	last		*
	dirty		*
	sad		*
Ukrainian	good	*	
	slow		*
	weak		*
	ugly		*
	last	*	
	foolish		*
	clean		*
	little		
Canadian	heavy	*	

pairs between grades four and eight. The ethnic concepts Norwegian, German and Dutch were not included in the group of ethnic concepts that changed most for any adjective-pair.

Considerable consistency between the grades in the direction of change existed even when the rate of change differed as indicated in Table 16. The most number of discrepancies in the direction of change occurred for the adjective-pair "little-big". The changes in ratings from grade four to eight for "slow-fast", "wise-foolish", "happy-sad", "pretty-ugly", and "good-bad" were in the same direction for all ethnic concepts. It can be seen that the most number of discrepant ratings occurred for the ethnic concept "Norwegian"; Russian had discrepancies on three adjective-pairs; American on two; and Dutch on one.

II. OPEN-ENDED QUESTIONNAIRE

The percentage of responses given to each content category for each ethnic concept by grade were summarized according to ethnic concept (refer to Appendix J), and according to content category (refer to Appendix K). Two categories (other cultural-behavioral and other cultural-material) have been omitted in these Appendices as no responses occurred in either category.

For descriptive and discussion purposes a category has been called a "major" one if 10% or more of the answers fell in it. The major content categories used for each ethnic concept in grades four and eight are summarized in Table 17 and 18 respectively; the percentages

TABLE 16

Changes in Direction of Ratings for Each
 Adjective-pair, the Ethnic Concepts on Which the Changes Occur
 and the Nature of the Change for Grade Eight Compared with Grade Four

Adjective-pair	Number of changes	Ethnic Concepts occurring on	Nature of discrepant change compared with grade 4
little-big	4	American Norwegian Russian Dutch	less extreme on "little" or more extreme on "big"
slow-fast	0	-----	-----
friendly-unfriendly	1	Norwegian	more extreme on "friendly"
weak-strong	1	Russian	more extreme on "strong"
clean-dirty	1	Norwegian	more extreme on "clean"
heavy-light	2	Norwegian Russian	more extreme on "heavy"
first-last	1	American	more extreme on "first"
pretty-ugly	0	-----	-----
happy-sad	0	-----	-----
quiet-loud	1	Norwegian	more extreme on "quiet"
wise-foolish	0	-----	-----
good-bad	0	-----	-----

TABLE 17

Percentage Received at the Grade Four Level
by Each Ethnic Concept in the Major Content Categories

Ethnic Concept	Content Category										
	Lang.	Pol.	Phys.	Pers.	Int.	Eval.	Geog.	Peop.	N.A.	D.K.	Unsc.
German	11	--	--	20	--	--	13	13	--	--	--
American	--	--	--	19	--	12	20	11	--	--	--
French	20	--	--	22	--	--	15	--	--	--	--
Norwegian	--	--	--	22	--	--	14	10	--	18	--
Polish	--	--	--	18	--	--	15	11	--	16	--
British	--	--	--	20	--	--	14	11	--	11	12
Russian	--	--	--	22	--	--	13	11	--	10	--
Dutch	--	--	--	24	--	--	11	10	--	--	10
Can. Ind.	--	--	--	19	--	10	16	--	--	--	13
Ukrainian	--	--	--	23	--	--	--	10	--	14	10
Canadian	--	--	--	31	--	--	14	10	--	--	--
Total	2	0	0	11	0	2	10	9	0	5	4

TABLE 18

Percentage Received at the Grade Eight Level
by Each Ethnic Concept in the Major Content Categories

Ethnic Concept	Content Category										
	Lang.	Pol.	Phys.	Pers.	Int.	Eval.	.Geog.	Peop.	N.A.	D.K.	Unsc.
German	--	--	10	24	--	--	12	--	--	--	--
American	--	--	--	30	--	--	10	--	--	--	--
French	--	--	10	26	--	--	--	--	10	--	--
Norwegian	--	--	16	23	--	--	12	--	--	13	--
Polish	--	--	11	22	--	--	11	--	--	17	--
British	10	--	--	23	--	--	11	--	--	--	--
Russian	--	10	11	22	--	--	10	--	--	--	--
Dutch	--	--	14	26	--	--	10	--	--	--	--
Can. Ind.	--	--	11	22	--	--	--	--	22	--	--
Ukrainian	--	--	10	22	11	--	--	--	13	--	--
Canadian	--	--	--	34	--	--	10	--	--	--	--
Total	1	1	8	11	1	0	8	0	3	2	0

received are specified. Examination of the tables reveal that the greatest percentage of responses was to the content category "personality trait" for all the ethnic concepts for both grades. This was the only content category which was used as a major one for every ethnic concept by either grade. The percentages given in grade eight were higher than those given in grade four for every ethnic concept except Russian where they were equal.

"Geography" was also used as a major content category for both grades, although grade four students used it with two more ethnic concepts than grade eight students. The percentages had a consistent tendency to be smaller in grade eight compared to grade four.

The greatest difference between grades in the use of the content categories as major ones occurred for "people" and "physical description", the former was used exclusively in grade four in reference to nine of the ethnic concepts, and the latter was used exclusively in grade eight in reference to eight of the ethnic concepts. Similar differences in grade usage, although not to the same extent, were evident for the categories "evaluative" (used only by grade four students for two ethnic concepts), and "intellectual trait" and "political" (used only by grade eight students for one ethnic concept each). In four instances 10% or more of the grade eight responses were not able to be agreed upon by the judges; this did not occur in grade four.

Examination of Table 17 and 18 reveals that there were considerable differences between the grades in the ethnic concepts with which

the use of major categories occurred.

The total number of categories used by each grade for each ethnic concept, with exception of the categories "no agreement", "unscorable", and "don't know", are presented in Table 19. For every ethnic concept, except Russian for which the number of categories used by each grade was equal, the grade eight students used a greater number of categories than the grade four students.

Consideration of Tables 20 and 21 indicates the categories that were least used for grade four and eight respectively. Least used was considered to be less than 5% of the time in the majority of cases. The categories "political" and "occupation" were not referred to more than 5% of the time except in reference to German and Russian by the grade eight students. Responses to race constituted 1% to 2% of the answers for all ethnic concepts in grade eight but were never given in grade four.

A difference in the percentage of answers given in a content category has been called a "major shift" if there was a difference of 5% or more in the ratings of a content category. A downward shift was considered to be one where the percentage decreased between grades four and eight; an upward shift was considered one which increased between grades four and eight. It can be seen from Table 22 that the most number of downward shifts occurred for the categories "language", "evaluative", "geographical", and "don't know". The most number of upward shifts occurred for the category "physical description". The

TABLE 19

The Number of Categories Used by
 Each Grade for Each Ethnic Concept Excluding
 "No Agreement", "Unscorable", and "Don't Know"

Ethnic concept	Grade 4	Grade 8
German	14	17
American	14	16
French	11	16
Norwegian	10	17
Polish	12	17
British	13	17
Russian	16	16
Dutch	10	17
Can. Ind.	13	17
Ukrainian	11	17
Canadian	11	15
Total	135	182
\bar{x}	13.2	16.5

TABLE 20

Percentages Received at the Grade Four Level
by Each Ethnic Group in the Least Used Categories

Ethnic concept	Content category									
	rel.	occ.	pol.	habits	hist.	o.p.c.	slang	nat.	anc.	race
German	0	0	2	1	3	0	3	1	1	0
American	0	1	1	1	2	0	1	1	1	0
French	0	0	1	2	1	0	2	1	0	0
Norwegian	0	2	0	2	0	0	0	0	0	0
Polish	0	1	0	1	0	0	1	0	0	0
British	0	1	1	1	1	0	1	0	0	0
Russian	1	1	2	3	1	1	1	0	0	0
Dutch	0	2	0	4	0	0	0	0	0	0
Can. Ind.	0	3	1	2	2	0	0	1	1	0
Ukrainian	1	0	0	2	0	0	1	0	0	0
Canadian	0	0	0	0	0	0	0	1	0	0

TABLE 21

Percentages Received at the Grade Eight Level
by Each Ethnic Group in the Least Used Categories

Ethnic concept	Content category									
	rel.	occ.	pol.	habits	hist.	s.p.c.	slang	nat.	anc.	race
German	0	2	5	1	3	0	2	1	1	2
American	1	1	1	4	0	0	3	2	0	2
French	2	2	2	2	0	1	3	2	0	1
Norwegian	1	2	1	4	1	0	0	2	1	1
Polish	1	1	1	2	0	0	0	2	1	1
British	1	2	2	1	0	0	1	1	1	1
Russian	1	1	10	4	1	0	1	1	1	1
Dutch	1	6	1	2	0	0	2	2	1	1
Can. Ind.	1	1	1	1	0	1	2	2	0	1
Ukrainian	1	1	1	3	0	1	4	2	0	1
Canadian	1	1	3	2	0	0	0	3	0	1

TABLE 22

Categories on which Major Shifts Occur for Each Ethnic Concept

Ethnic concept	Major Shifts	
	Downward	Upward
German	language people	
American	geography evaluative	personality
French	language geography	no agreement
Norwegian	don't know	physical desc.
Polish	evaluative	physical desc.
British	evaluative people unscorable	
Russian	language	political physical desc.
Dutch	language clothing	physical desc.
Can. Ind.	evaluative geographical don't know	physical desc. no agreement
Ukrainian	don't know	physical desc.
Canadian	language	

most number of shifts, both upward and downward, occurred between grades for Canadian Indian.

As a comparison of how many total responses were given by the two grades, the percentage of answers that were given that could be coded in one of the twenty-six categories, was computed of the total number of answers that could have been given (three for each ethnic concept for each student). Table 23 presents this data. It can be seen that in every case, the grade eight students gave a greater percentage of codable responses.

Because the semantic differential was given before the open-ended questionnaire, an effort was made to ascertain the extent to which the students used the adjective-pairs in their answers. The semantic differential adjective-pairs were placed in the content categories by the judges. The percentage of semantic differential adjectives making up answers in each category are presented in Table 24. By far their greatest usage was in the evaluative category where the words "good-bad" made up 72% of the evaluative responses in grade four and 50% of those in grade eight.

TABLE 23

Percentage of Codable Responses Given for the Twenty-six Categories

Ethnic Concept	Grade Four	Grade Eight
German	39	47
American	39	51
French	39	51
Norwegian	37	49
Polish	37	44
British	37	49
Russian	38	48
Dutch	38	47
Can. Ind.	37	50
Ukrainian	37	49
Canadian	40	51

TABLE 24

Percentage of Semantic Differential Adjectives in Each Category

Category	Adjectives	Grade 4	Grade 8
Physical Desc.	little-big weak clean heavy-light pretty-ugly	40	28
Personality	friendly-unfriendly sad-happy quiet-loud	13	25
Intellectual	wise-foolish	35	42
Unscorable	first-last	.6	.8
Evaluative	bad-good	72	50
No agreement	slow-fast dirty strong	38	26

CHAPTER V

DISCUSSION

The results obtained in this study established:

- i) that children do have distinct concepts of ethnic groups.
- ii) that these concepts change with the grade of the child.
- iii) distinct concepts of the specific ethnic groups investigated.

From the considerable amount of data collected and analyzed, it is possible to draw several conclusions concerning differences in ethnic concepts between grades four and eight, and concerning the concepts that are held of each ethnic group in each grade. These conclusions, the implications of the study, and the limitations of the study are discussed in the following sections.

a) Differences between grades

The results are consistent with the previously found trend of increased differentiation of ethnic concepts with age. The grade eight students differentiated the ethnic concepts to a greater extent from each other than the grade four students on all but three adjective-pairs as indicated by the number of ethnic contrasts.

Increased differentiation, within a dimension, is indicated by significant changes to less extreme ratings between grades four and eight on 24 out of 42 adjective-pairs. This would seem to indicate that

in grade eight the ethnic concepts are less clear cut or absolute in nature.

Increased differentiation is also reflected in the variety of associations used with the ethnic concepts: the mean number of content categories used to describe an ethnic group on the questionnaire was greater for the grade eight students than for the grade four students. Similarly, twice as many adjectives were used as peak scores on the semantic differential by the grade eight students. In addition, both directions of the scale were used in grade eight to rate the ethnic concepts more often than in grade four where for all but three of the adjective-pairs the ratings were confined to only one direction of the scales.

It is interesting to note that the grade four students did not use the adjectives "foolish", "ugly", "dirty", "weak", or "slow" in any of their ratings whereas the grade eight students did. Assuming that these are negative traits, it appears that the grade four student descriptions are restricted to favorable traits in contrast to those of the grade eight student. This finding is similar to that of Blake and Dennis (1943) which was interpreted as increasing differentiation of ethnic concepts with age. It also is consistent with the finding (Lambert and Klineberg, 1967) that grade four students are more inclined to view other ethnic groups favorably and be friendlier towards them than older children. Deriving additional support for this view from the fact that the grade eight ratings are generally less extreme is

tenuous as it is difficult to know how much of the changes are due to attitudes of friendliness or favorability, and how much is due to greater cognitive differentiation. At any rate, any tendency of the younger children to be friendlier towards other ethnic groups does not appear to be accompanied by a corresponding tendency to view other ethnic groups as friendly. This is suggested by the fact that there was a significant difference between grades on ratings of "friendly-unfriendly" for only one ethnic group.

Several grade changes in the content of the ethnic concepts are evident for both the semantic differential and the questionnaire. A comparison of the latter with the results of Lambert and Klineberg's (1967) study reveals interesting results. As in the latter study, this study found predominant use of personality traits with slightly greater use of them by the grade eight students. However, geographical references were used not only in grade four as in Lambert and Klineberg's (1967) study, but also in grade eight, although to a lesser extent. In addition, physical descriptions were used as a major category only in grade eight in the present study, whereas in the 1967 study they were found to be given only by the grade four students (Lambert and Klineberg, 1967). A difference in content between the grade four and eight responses that was not found in the Lambert and Klineberg (1967) study, due to methodological differences, was the greater number of references made to the language of an ethnic group in grade four than in grade eight.

It was previously mentioned that some researchers have found that their sample had the tendency to reject a stereotyping task and have interpreted this as due to either increasing information or to a rejection of the validity of generalizing about people. The "people" and "don't know" categories were included in the content analysis of this study to reflect these tendencies. It was felt that the older children might be inclined to emphasize the "people" category more than the younger children. However, this category was used as a major one only by grade four students. The grade eight students apparently had no objection to freely typifying characteristics of an ethnic group. The "don't know" responses, however, were consistent with the greater general knowledge of the grade eight students (and possibly a difficulty of the grade four students in reading the words "Ukrainian" and "Norwegian").

The categories "unscorable" and "no agreement" appeared to be consistent with expected age differences also. The greater number of the former category for grade four students likely reflects spelling and grammatical errors, repetitions of the country's name, and answers such as "I am one". The greater number of the "no agreement" answers given by grade eight students could possibly reflect unusual or complex answers. There were a number of answers where agreement among political, economic, and current social problems could not be reached by the judges; this likely accounts for the great number of "no agreement" answers for the grade eight students on Canadian Indian, French, and Ukrainian.

Information on grade differences in content of the ethnic concepts can also be inferred from consideration of the semantic differential adjective-pairs. Judging by the number of significant changes between grades, changes in the views of an ethnic group's strength, wisdom, and goodness were most frequent between grades. By the same criterion, the view of an ethnic group along the "friendly-unfriendly" dimension rarely changes between grades four and eight. In addition, the overall grade differences for "little-big" were not significant. For some reason, "strong" consistently was given the most extreme rating of any adjective for every ethnic concept by grade four students; with two exceptions, the same is true of grade eight students.

It is interesting to note that "good-bad", in addition to being a dimension that changed the most frequently between grades, was the only adjective-pair for which the grade four students had more ethnic contrasts than the grade eight students. Similar differences between grades in the use of the "evaluative" category on the questionnaire were evident; only the grade four students used it as a major category, and it was one of the categories on which the most number of downward shifts occurred between grades four and eight. Since 72% of the evaluative answers for grade four students consisted of the words "good" and "bad", it seems clear that evaluation along a "good-bad" dimension is more likely to occur with the younger children.

Other differences between grades in the use of the adjective-pairs occurred with regard to those used most to differentiate the ethnic con-

cepts from each other. "Pretty-ugly" was used most often by both grades with the grade four students also using "slow-fast", and the grade eight students "little-big" and "clean-dirty". "Heavy-light" had the fewest number of ethnic contrasts for both grades. The only adjective-pair for which grade four students had more ethnic contrasts than the grade eight students was "good-bad".

b) Concepts of specific ethnic groups

In general, the children's concepts of the ethnic groups are favorable ones; no groups were rated as "unfriendly" or "bad" by either grade, and most adjectives given peak scores for each ethnic group were favorable ones. The following is a summary of the noteworthy findings concerning each of the ethnic groups.

Canadian - The students in this study appear to have a very clear and favorable concept of their nationality. Judging by the number of ethnic contrasts, Canadians are most clearly seen by both grades. Canadians are seen as significantly friendlier, prettier, and happier than the other ethnic groups. In addition, there is a trend for Canadians to be rated as more extreme in comparison with the other groups on good, wise, happy, first, clean, and fast, for both grades. This is consistent with the research findings that one's own national group tends to be idealized. There appears to be little change between grades on the concept of Canadian, with the exception that the grade eight students rate Canadian

less heavy than the grade four students. The degree of change between grades on this adjective was one of the largest of any ethnic group.

It will be recalled that Lambert and Klineberg's (1967) English Canadian sample used, in describing themselves, the categories of material possessions, language, occupation, and habits of living (age 10) and political characteristics and habits (age 14). Although methodological differences make comparison tenuous, corresponding categories in the present study were not major ones used with references to Canadian. The children in this sample appear to think of themselves in terms of personality characteristics and geographical terms for both grades with the grade four students additionally using the category "people". Although not a major category of use for grade four students, they do make considerably more references to language than grade eight students.

Ukrainian - The concept of Ukrainian was the one which underwent the most number of significant changes between grades four and eight. These changes appear to be towards a less favorable concept; they are rated more extremely than all other ethnic groups by the grade eight students on foolish, ugly, weak, slow, little, and last by the grade eight students. In addition, the ratings on happy, good, and clean are all less extreme than those of grade four students. Further evidence that the concept of Ukrainian becomes more negative at the higher grades, is the fact that most of these significant changes were among the greatest

ones for the adjective-pairs. However, it should be noted that "friendly" was one of the peak scores received by Ukrainians from the grade eight students as well as the grade four students. The concept "Ukrainian" is also much clearer and more differentiated from other ethnic concepts for grade eight students than grade four students judging from the percentage of peak scores and number of significant ethnic contrasts.

On the questionnaire, Ukrainian was the only ethnic concept receiving a major score on the content category "intellectual" (from the grade eight students). It should be noted that over 10% of the grade four student answers to Ukrainian were unscorable. Ukrainian was the only ethnic group for which geography was not a major category for the grade four students.

Canadian Indian - Canadian Indian is another ethnic group of which the grade eight students' concept appears to be significantly less favorable than the grade four students' concept. They are rated in grade eight significantly less fast, less strong, less wise, and dirty, sad, and last, as opposed to clean, happy, and first. The changes on wise, dirty, strong, last, and sad, are among the largest of any ethnic group. However, despite these changes towards a less favorable concept, the peak scores given by grade eight students to Canadian Indian are to friendly, strong, and wise. It is possible that the grade eight ratings reflect a growing awareness of the social situation of the Canadian Indian, although answers to the open-ended questionnaire do not indicate

this, unless the "no agreement" category contains these references as suggested previously.

The grade eight students made fewer references to the evaluative and geographical categories than the grade four students, and more references to physical descriptions. Fewer of their answers were "don't know", but more could not be agreed upon. The Canadian Indian was one of two ethnic groups for which evaluative was a major category for grade four students, and with which the category "people" was not used as a major category. They also were the most clearly differentiated group (judging by the number of ethnic contrasts) in grade four after Canadian.

Norwegian - One of the most significant findings concerning the Norwegian was that ratings between grades four and eight changed in a different direction from those on all other ethnic groups for the adjective-pairs "friendly-unfriendly", "quiet-loud", "heavy-light", "little-big" and "cleandirty". This was the only ethnic concept for which ratings generally became more favorable in grade eight. However, this tendency was slight as none of these changes were great compared to changes on the other ethnic concepts; this was the only ethnic concept which did not change significantly between grades on any of the adjective-pairs. Norwegian received major scores on the "don't know" category from both grades, although a greater percentage was given in grade four. The only major change between grades on the questionnaire was fewer references to physical descriptions in grade four.

American - Lambert and Klineberg (1967) found that Americans were seen as one of the most desirable nationalities by their ten and fourteen year olds. However, in this study, the only adjectives for which they were given an extreme score in comparison with the other ethnic concepts were heavy (for grade four) and big and loud (for grade eight). It does not appear, therefore, that the students in this sample would see Americans as being more desirable than the other ethnic groups. Moreover, the grade eight students' concepts of American are less favorable than those of the grade four students. American was one of the ethnic concepts that changed a great deal between grades and these differences were in a less favorable direction. The changes to a less extreme rating on good, pretty, wise, happy, friendly, clean and to loud were among the largest of any of the ethnic concepts. American was the only ethnic concept rated significantly less friendly in grade eight than in grade four.

However, it should be noted that the overall concept of American remains a favorable one for the grade eight students. It is possible, in addition, that the American might be seen as more "advanced" by the grade eight students. American was the only concept for which the grade eight students gave a more extreme rating than grade four students on first, and they were the only group that grade eight students rated as bigger than the grade four students. Other changes in the concept of American that occurred between grades were that grade four students made more references in the geographical and evaluative categories, and fewer to personality traits than grade eight students.

Russian - The Russian was seen as one of the most undesirable nationalities in Lambert and Klineberg's (1967) study, and as one of the nationalities most different from Canadians. This is perhaps indicated more for grade eight students than grade four students in this study, considering that one of the greatest degrees of change on "pretty-ugly" occurs for Russians. The grade eight students rated Russian as ugly rather than pretty as in grade four; this was a significant difference between grades. Russian was one of the ethnic concepts changing very little between grades on the semantic differential. Besides the difference on ugly, the grade eight students rated Russians as bigger.

On the questionnaire, the differences between the grades were that the grade eight students placed less emphasis on language and more on physical descriptions and political references. One of the few uses of political as a major category occurred with Russian in grade eight. This finding is similar to that of Lambert and Klineberg (1967).

Dutch - Views of Dutch are apparently quite similar between the two grade levels. However, the grade four students rated Dutch more extremely in comparison with other ethnic groups than grade eight students. They also placed more emphasis on language and clothing and less on physical descriptions. In addition, the grade eight students rated Dutch as significantly "less good" than grade four students. Ten percent of the answers given by grade four students were unscorable.

Polish - The Polish appear to be seen fairly distinctly by the two grades, but seen in extremes compared to other ethnic concepts. They were not rated among the highest on any adjective by either grade. Significant changes between grades included ratings in grade eight in the direction of slow, bad and last instead of fast, good, and first as in grade four. The change on "slow-fast" was among the greatest occurring for all ethnic concepts. Polish was one of two ethnic groups whose extreme scores on the adjectives included "last". This occurred in grade eight only. It thus appears that grade eight students have a slightly less favorable concept of Polish than grade four students. A considerable proportion of students report not knowing what 'Polish' is in both grades. More physical descriptions and fewer evaluative statements about Polish were given in grade eight than in grade four.

British - The British were one of the nationalities cited as most desirable in Lambert and Klineberg's (1967) study. Certainly, no negative adjectives were associated with British in this study, but apart from this, the concept "British" appears to be rather nebulous. The least number of ethnic contrasts occurred for British suggesting that it is least differentiated from the other ethnic concepts for both grades. In addition, British was not given the highest rating on any adjective-pair by grade eight students, and ten percent of the grade four students' responses were "don't know" and "unscorable".

Very few, and not extreme changes took place between grades, the

only significant change being that they were seen as less strong in grade eight compared to grade four. The change between grades in ratings on "heavy-light" was one of the largest. Fewer evaluative, and unscorable answers and references to people were given in grade eight on the questionnaire.

French - French was the concept changing on the most number of adjective-pairs after Ukrainian. Although these changes included a less extreme rating on good and a rating on last rather than first, the overall change between grades does not appear to be an unfavorable one. The greatest changes appear to be in the extent to which the French are seen as little and light.

Few ethnic contrasts existed suggesting that although the concept changes a lot between grades, French was not differentiated clearly from other ethnic concepts for either grade. Consistent with this, it did not receive a most extreme rating on any adjectives at all in grade four, and on very few in grade eight.

Differences between grades on the questionnaire included more references by the grade four students to language and geography (the former being a major category). Surprisingly, the grade eight students did not have a major percentage of responses in the language and political categories as might reasonably have been expected considering the current French-English debate in Canada. As with the Canadian Indian and Ukrainian, however, it is possible that these references could not have been agreed upon, and this could account for the large number of "no agreement" answers.

German - This was one of the nationalities which Lambert and Klineberg's (1967) sample reported to be most undesirable. However, both grades have a favorable concept judging by the adjective given peak scores in describing them. The major difference between grades appears to be in their rating of last, happy, and wise. The grade eight students rated them less extreme on all these adjectives. The grade four students made more references to their language (one of two ethnic groups whose language they refer to), and to "people" than the grade eight students. It is interesting to note that historical references are very small in relation to this ethnic group. However, grade eight students made major use of the political category with reference to Germans.

c) Implications of study

It is encouraging to find, in this study, that the children in both grades have distinct and favorable concepts of themselves as Canadians. It is evident also from this study that the children, by and large, do have distinct concepts of the ethnic groups they live with and hear about in national and international affairs. It is an important finding that these concepts are basically favorable ones, even when a few traits that could be seen as unfavorable ones are included. This, in turn, reflects favorably on the community and educational resources from which the children have learned their concepts. However, considering the tendency in grade eight to hold more unfavorable concepts concerning Ukrainians, Canadian Indians, Polish, and Americans, it would perhaps be advisable to provide additional educational materials and experiences concerning

these ethnic groups to ensure that their concepts are based on accurate information.

Another important finding of this study is that cultural factors (such as language, clothing, and customs) do not play a large role in the concepts of ethnic groups, personality factors being by far the most important consideration for the children of both grades. Whether or not educational programs should encourage greater emphasis on such cultural factors is a question that will have to be answered by each community.

d) Limitations of study

Although this study does provide some information on children's concepts of ethnic groups, it has the following limitations:

i) The findings are restricted to the community of St. Albert although they may be generalized to other communities in Alberta or geographical areas that have the same ethnic composition.

ii) Most of the results of the analysis of variance of the semantic differential were significant at the .05-level. However, the actual differences along a five point scale were very slight, in some cases only .10 scale points or less, and in most cases less than one full point. It is unknown whether or not such minute differences in ratings, although significant, would make any practical differences in the children's day-to-day relationships.

iii) The use of a written form of questionnaire could have had an effect on the quantity and quality of the responses, especially for the grade four students, despite attempts to overcome the difficulties.

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A P P E N D I X A

Instructions to students and example of test protocol

Instructions to Students

Introduction

We are from the University of Alberta and are doing a study finding out what students in grade four (eight) think about certain things. I will be asking you to answer several questions this morning (afternoon). There will be some questions that you probably will think are strange ones. Please answer them as best you can. There are no right or wrong answers to the questions; I am interested only in finding out what you think. If there are any questions as we go, please ask me.

Semantic Differential

The purpose of this part of the study is to find out what certain things mean to you. In answering these questions, you are to decide what these things mean to you. On each page of the booklet you will receive, you will find a different word at the top of the page. Below each word will be pairs of words describing it. Each pair of words is opposite in meaning such as hot-cold, black-white, up-down. Between each pair of words are five blank spaces.

For example, take the word "Tree". Below it are the words thick and thin. In between the words thick and thin are five spaces. The middle space has a double line under it. You are to put an X in the space that tells best what the word "Tree" means to you. If you think a "Tree" is very thick, then put an X in the space closest to "thick". If you think a "Tree" is pretty thick, put an X in the space between the one closest to thick and the middle space - right here.

However, if you think a "Tree" is very thin, then put an X in the space closest to "thin". If you think a "Tree" is pretty thin, put your X between the space closest to thin and the middle space - right here.

Now, if you think a "Tree" is neither thin nor thick or that it is in-between the two, then put your X in the middle space.

When you do this you should never put more than one X on a line. You should work fairly quickly, putting down what you first think.

I will hand out your booklet to you in a minute. When you get it, first print your name clearly on it in the top right corner of the first page. Then we will do together the example on the first page for practise. Do not open the booklet until we have finished the example and you are told to do so.

Remember the following things:

- place your X's in the middle of spaces, not on the lines - this and not this.
- be sure you check every line on each page - do not leave any out.
- never put more than one X on a single line.

Sometimes you may feel as though you have had the same thing twice. This will not be the case, so do not look back and forth at

what you did before. Do not try to remember how you checked the ones you have finished in the test. Try to decide each time as though it were the first one you had done. Work fairly quickly through the test; do not worry or puzzle over any one of them. It is your first feeling about each one that we want. On the other hand, please do not be careless, because we want to know what you really think.

Questionnaire

Please print your name on the right corner of this sheet also, and then answer the questions. Try to put something down for each one, but if you really don't know what one is, just print in, "Don't know". If you don't understand them or want to ask a question, please raise your hand. Please try to print your answers clearly so that we can read them.

Section 3

I. What are the following?

(a) a German:

(b) an American:

(c) a French man:

(d) a Norwegian:

(e) a Polish person:

(f) a Briton:

(g) a Russian:

(h) a Dutchman:

(i) a Canadian Indian:

(j) a Ukrainian:

(k) a Canadian:

Tree

thick	(<u> </u>)	thin
smooth	(<u> </u>)	rough
up	(<u> </u>)	down
light	(<u> </u>)	heavy
young	(<u> </u>)	old

French

little	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	big
slow	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	fast
friendly	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	unfriendly
weak	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	strong
clean	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	dirty
heavy	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	light
first	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	last
pretty	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	ugly
sad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	happy
quiet	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	loud
wise	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	foolish
bad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	good

American

little	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	big
slow	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	fast
friendly	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	unfriendly
weak	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	strong
clean	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	dirty
heavy	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	light
first	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	last
pretty	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	ugly
sad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	happy
quiet	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	loud
wise	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	foolish
bad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	good

Ukrainian

little	(<u>l</u> <u>i</u> <u>tt</u> <u>le</u>)	(<u>l</u> <u>e</u> <u>ss</u>)	(<u>l</u> <u>e</u> <u>gi</u>)	(<u>l</u> <u>a</u> <u>r</u>)	(<u>l</u> <u>o</u> <u>ng</u>)	big
slow	(<u>s</u> <u>l</u> <u>o</u> <u>w</u>)	(<u>s</u> <u>l</u> <u>e</u> <u>w</u>)	(<u>s</u> <u>l</u> <u>o</u> <u>w</u>)	(<u>s</u> <u>l</u> <u>e</u> <u>w</u>)	(<u>s</u> <u>l</u> <u>o</u> <u>w</u>)	fast
friendly	(<u>f</u> <u>ri</u> <u>en</u> <u>d</u> <u>ly</u>)	unfriendly				
weak	(<u>w</u> <u>e</u> <u>ak</u>)	strong				
clean	(<u>c</u> <u>l</u> <u>e</u> <u>a</u> <u>n</u>)	dirty				
heavy	(<u>h</u> <u>e</u> <u>av</u> <u>y</u>)	light				
first	(<u>f</u> <u>i</u> <u>rs</u> <u>t</u>)	last				
pretty	(<u>p</u> <u>re</u> <u>tt</u> <u>y</u>)	ugly				
sad	(<u>s</u> <u>a</u> <u>d</u>)	happy				
quiet	(<u>q</u> <u>ui</u> <u>et</u>)	loud				
wise	(<u>w</u> <u>i</u> <u>s</u> <u>e</u>)	foolish				
bad	(<u>b</u> <u>a</u> <u>d</u>)	good				

Dutch

little	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	big
slow	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	fast
friendly	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	unfriendly
weak	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	strong
clean	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	dirty
heavy	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	light
first	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	last
pretty	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	ugly
sad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	happy
quiet	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	loud
wise	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	foolish
bad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	good

Canadian Indian

little	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	big
slow	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	fast
friendly	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	unfriendly
weak	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	strong
clean	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	dirty
heavy	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	light
first	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	last
pretty	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	ugly
sad	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	happy
quiet	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	loud
wise	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	foolish
bad	(<u> </u>) (<u> </u>) (<u><u> </u></u>) (<u> </u>) (<u> </u>)	good

German

little	(<u> </u>)	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	big
slow	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	fast
friendly	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	unfriendly
weak	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	strong
clean	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	dirty
heavy	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	light
first	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	last
pretty	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	ugly
sad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	happy
quiet	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	loud
wise	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	foolish
bad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	good

Russian

little	(<u>_</u>) (<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>)	big
slow	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	fast
friendly	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	unfriendly
weak	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	strong
clean	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	dirty
heavy	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	light
first	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	last
pretty	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	ugly
sad	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	happy
quiet	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	loud
wise	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	foolish
bad	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	good

British

little	(<u> </u>)	big
slow	(<u> </u>)	fast
friendly	(<u> </u>)	unfriendly
weak	(<u> </u>)	strong
clean	(<u> </u>)	dirty
heavy	(<u> </u>)	light
first	(<u> </u>)	last
pretty	(<u> </u>)	ugly
sad	(<u> </u>)	happy
quiet	(<u> </u>)	loud
wise	(<u> </u>)	foolish
bad	(<u> </u>)	good

Polish

little	(<u><u>_</u></u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	big
slow	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	fast
friendly	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	unfriendly
weak	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	strong
clean	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	dirty
heavy	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	light
first	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	last
pretty	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	ugly
sad	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	happy
quiet	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	loud
wise	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	foolish
bad	(<u>_</u>) (<u>_</u>) (<u><u>_</u></u>) (<u>_</u>) (<u>_</u>)	good

Norwegian

little	(<u>l</u>)	(<u>i</u>)	(<u>l</u>)	(<u>l</u>)	(<u>t</u>)	big
slow	(<u>s</u>)	(<u>l</u>)	(<u>o</u>)	(<u>w</u>)	(<u>l</u>)	fast
friendly	(<u>f</u>)	(<u>r</u>)	(<u>u</u>)	(<u>l</u>)	(<u>y</u>)	unfriendly
weak	(<u>w</u>)	(<u>e</u>)	(<u>ak</u>)	(<u>w</u>)	(<u>k</u>)	strong
clean	(<u>c</u>)	(<u>l</u>)	(<u>ea</u>)	(<u>n</u>)	(<u>i</u>)	dirty
heavy	(<u>h</u>)	(<u>e</u>)	(<u>v</u>)	(<u>e</u>)	(<u>y</u>)	light
first	(<u>f</u>)	(<u>i</u>)	(<u>st</u>)	(<u>h</u>)	(<u>o</u>)	last
pretty	(<u>p</u>)	(<u>re</u>)	(<u>tt</u>)	(<u>y</u>)	(<u>u</u>)	ugly
sad	(<u>s</u>)	(<u>a</u>)	(<u>ad</u>)	(<u>d</u>)	(<u>u</u>)	happy
quiet	(<u>q</u>)	(<u>ui</u>)	(<u>et</u>)	(<u>u</u>)	(<u>d</u>)	loud
wise	(<u>w</u>)	(<u>i</u>)	(<u>is</u>)	(<u>e</u>)	(<u>u</u>)	foolish
bad	(<u>b</u>)	(<u>a</u>)	(<u>ad</u>)	(<u>d</u>)	(<u>u</u>)	good

Canadian

little	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	big
slow	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	fast
friendly	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	unfriendly
weak	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	strong
clean	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	dirty
heavy	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	light
first	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	last
pretty	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	ugly
sad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	happy
quiet	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	loud
wise	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	foolish
bad	(<u> </u>)	(<u> </u>)	(<u><u> </u></u>)	(<u> </u>)	(<u> </u>)	good

A P P E N D I X B

Instructions to judges with descriptions of the content categories

Instructions

The statements printed on these cards have been collected in an investigation of how children think of different ethnic groups. Eleven ethnic groups have been studied: Canadian, Canadian Indian, German, American, Ukrainian, Norwegian, Polish, Russian, French, Dutch, and British. The children who have been questioned in this investigation are grade four and eight students.

All the statements on these cards have been given by the students in answer to the question(s): "What is a German (American, Canadian, Frenchman, etc., etc.,). You are being asked to help in an attempt to see if certain types of answers are typically given to the different ethnic groups. To do this, it is necessary first to classify each of these answers in a specific category. These categories have been decided on with the help of previous research done by Lambert and Klineberg (1967).

The following are the categories and a brief description of each. Please read this carefully as this will be the basis for you to decide in which category each statement belongs.

Categories:

A) Cultural Behavioral

- 1) Any reference to the language of an ethnic group, including reference to accents.
- 2) Any reference to the religion or religious habits of an ethnic group.
- 3) Any reference to an occupation.
- 4) Any reference to the political beliefs or practices either done by or to an ethnic group.
- 5) Any reference to habits of living or other customs such as "like sports", "don't go to school" - this excludes references to food and clothing.
- 6) Any historical reference. This refers to specific historical events such as wars or disasters.
- 7) Any reference to current general "social" problems or concerns such as the ecology - excluding social problems that are specifically political or economic in nature.

8) Other - any reference that is felt to be of a "cultural-behavioral" nature that cannot be scored in any of these categories.

B) Cultural - Material

- 9) Any reference to the standard of living of an ethnic group.
- 10) Any reference to food or the cooking habits of an ethnic group.
- 11) Any reference to the type or quality of clothing.
- 12) Other - any reference that is felt to be of a "cultural-material" nature but can't be put in one of the above categories.

C) Personal

- 13) Physical descriptions - any reference to the appearance or physical characteristics of an ethnic group.
- 14) Any reference to personality traits or characteristics.
- 15) Any reference to intellectual characteristics.
- 16) Other - any reference that seems to be "personal" in nature but cannot be classified as physical, personality or intellectual.

D) Other

17) Evaluative statement - a general evaluation of a "good" - "bad" nature or a comparison to another ethnic group. This does not include personality characteristics that you might consider to be "good" or "bad" but statements that clearly are evaluative in themselves.

18) "Slang" name - a word that can be considered to be a slang name for that ethnic group or a general slang term.

19) Geographical reference - reference to geographical location or conditions of living.

20) General reference to "People", "member of the human race", "man", "teenager", etc.

21) Unscorable - a statement that because of grammar, ambiguity or other reasons cannot be classified with any degree of confidence.

When classifying these statements try to consider each one individually without referring to how you may have classified previous

answers. Do not be concerned if you find many of your answers going into one category. Some categories may not be used at all.

The statements should be taken for their most basic meaning, not an inference or implication of it (eg. "farmer" is an occupation, even though this may imply something about his standard of living). If a statement is ambiguous in that it has a double meaning put it in the unscorable category.

A P P E N D I X C

Table 25

Abbreviations for semantic differential
adjective-pairs used on Figures 1 to 11

Figures 1 - 11

Mean scores of semantic differential by ethnic concept

TABLE 25

Abbreviations for Semantic Differential
Adjective-pairs Used on Figures 1 to 11

l	-	little
b	-	big
s	-	slow
f	-	fast
f	-	friendly
u	-	unfriendly
w	-	weak
s	-	strong
c	-	clean
d	-	dirty
h	-	heavy
l	-	light
f	-	first
l	-	last
p	-	pretty
u	-	ugly
h	-	happy
s	-	sad
q	-	quiet
l	-	loud
w	-	wise
f	-	foolish
g	-	good
b	-	bad

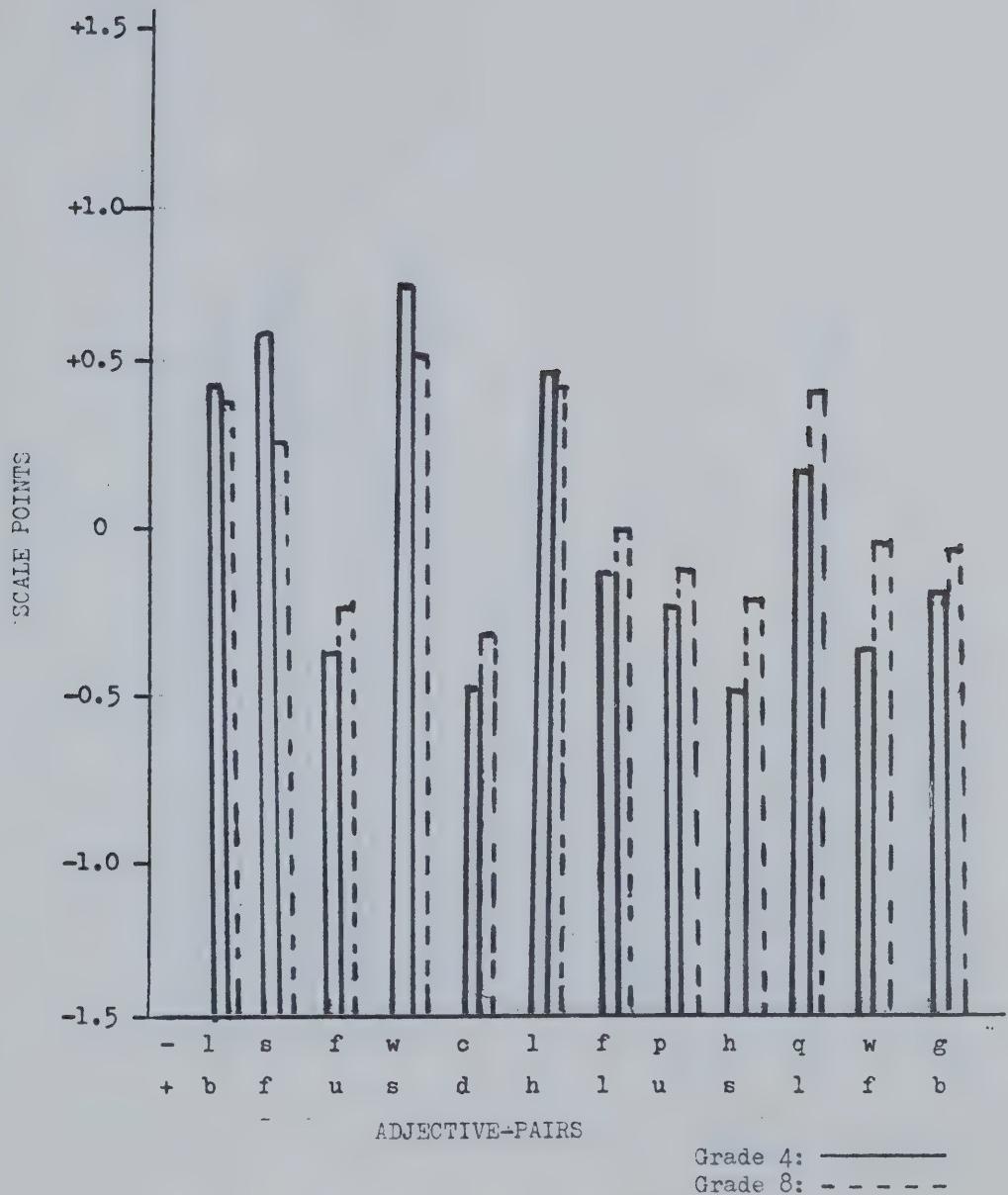


Figure 1. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "German"

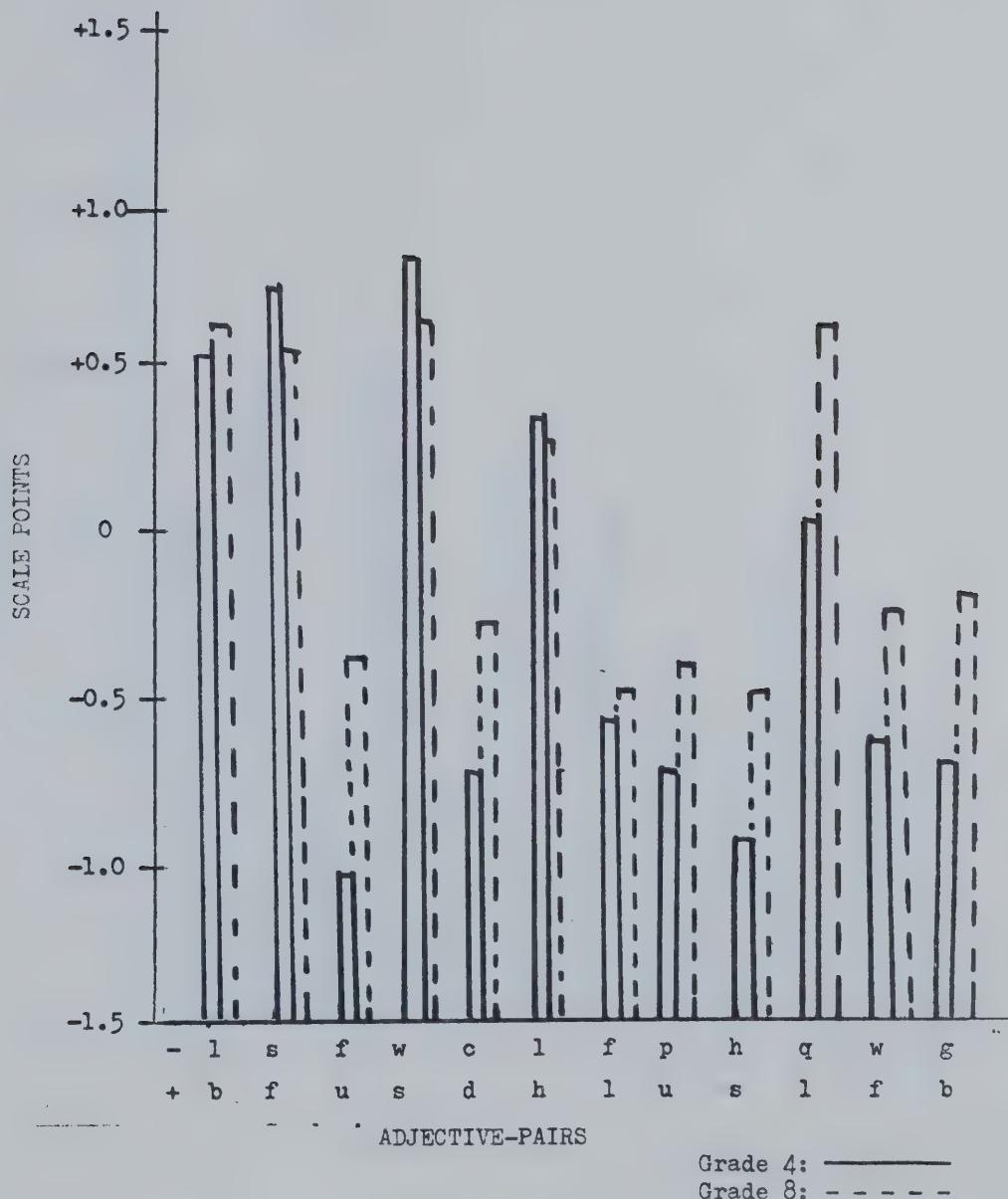


Figure 2. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "American"

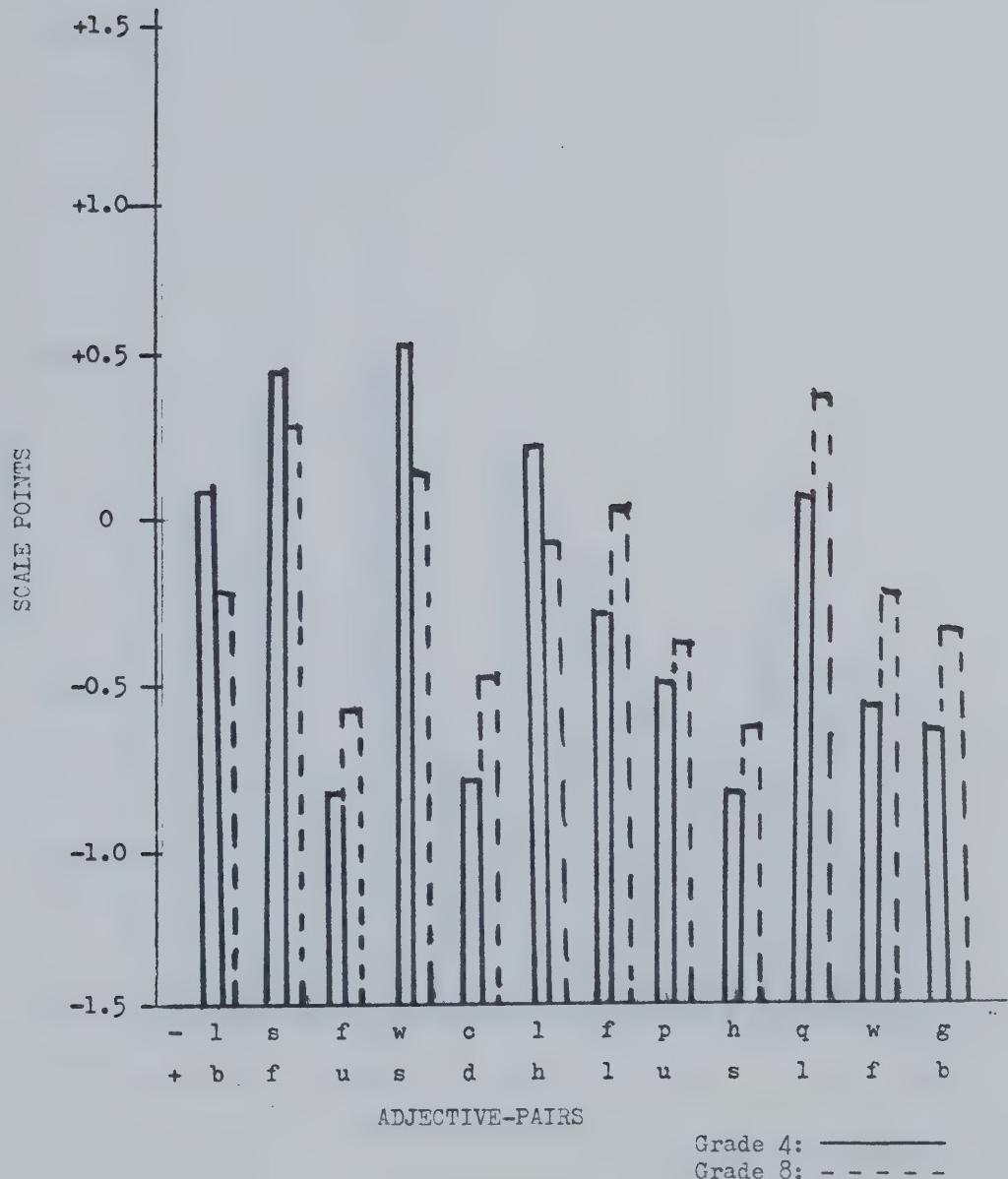


Figure 3. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "French"

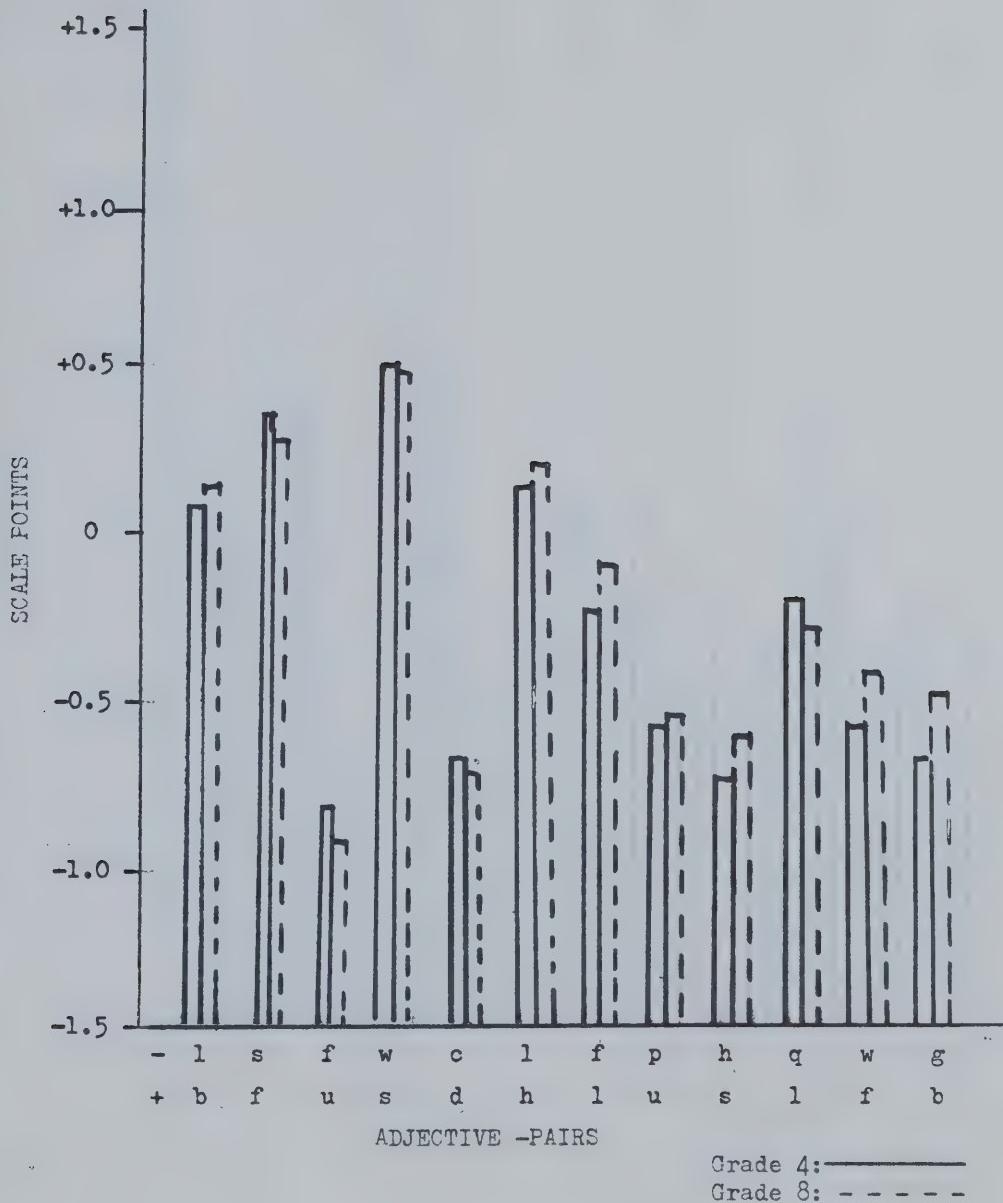


Figure 4. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "Norwegian"

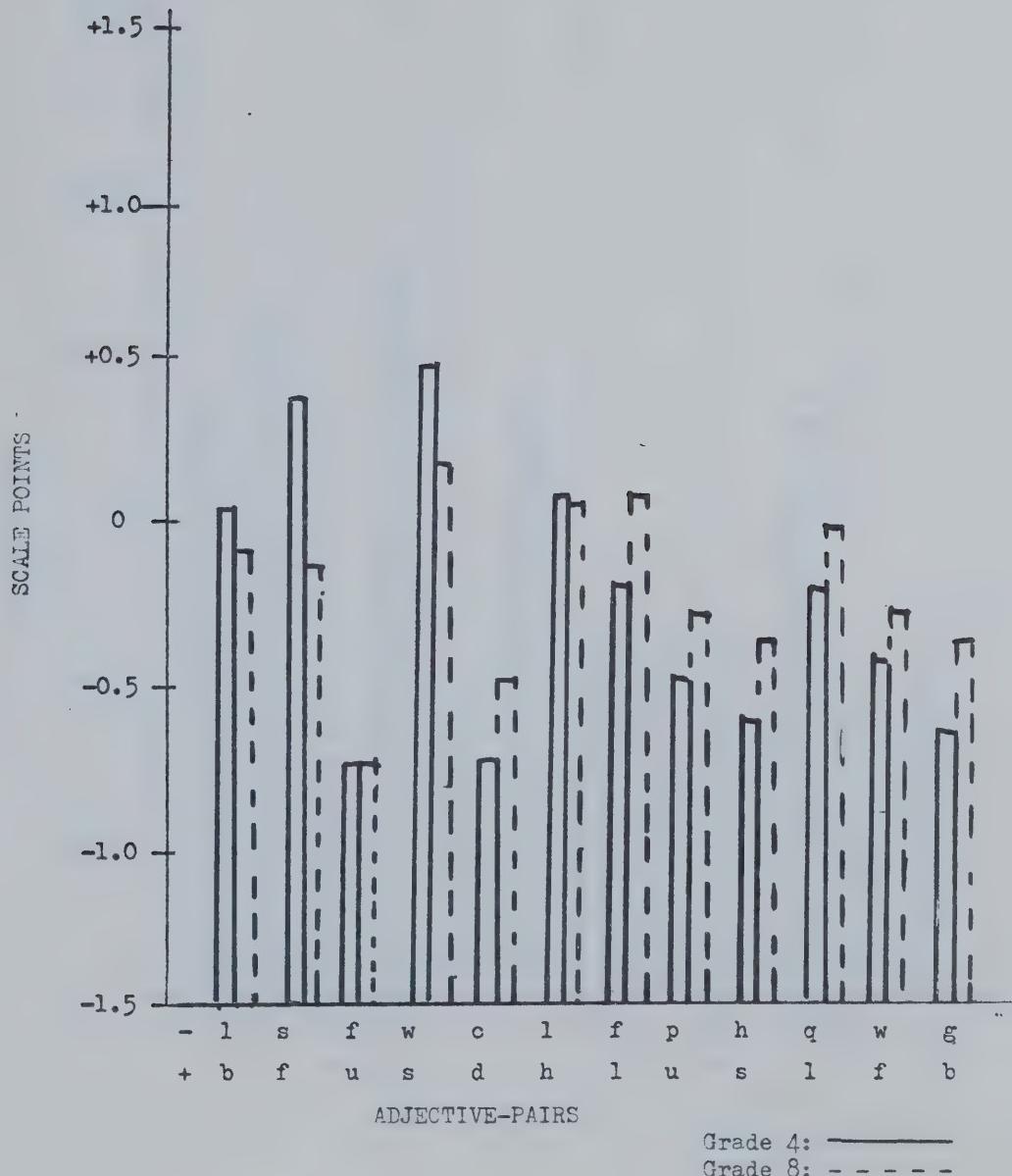


Figure 5. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "Polish"

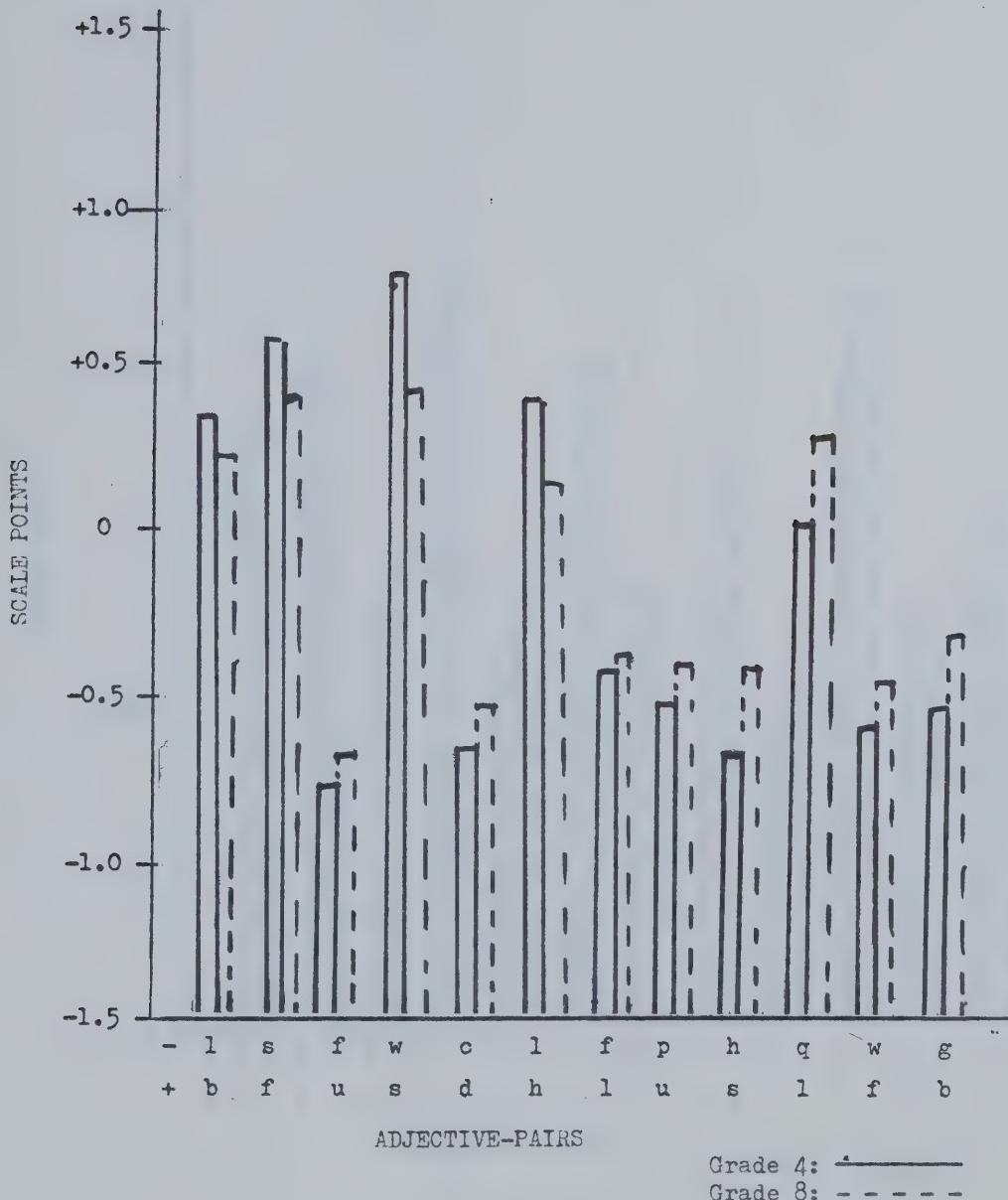


Figure 6: The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "British"

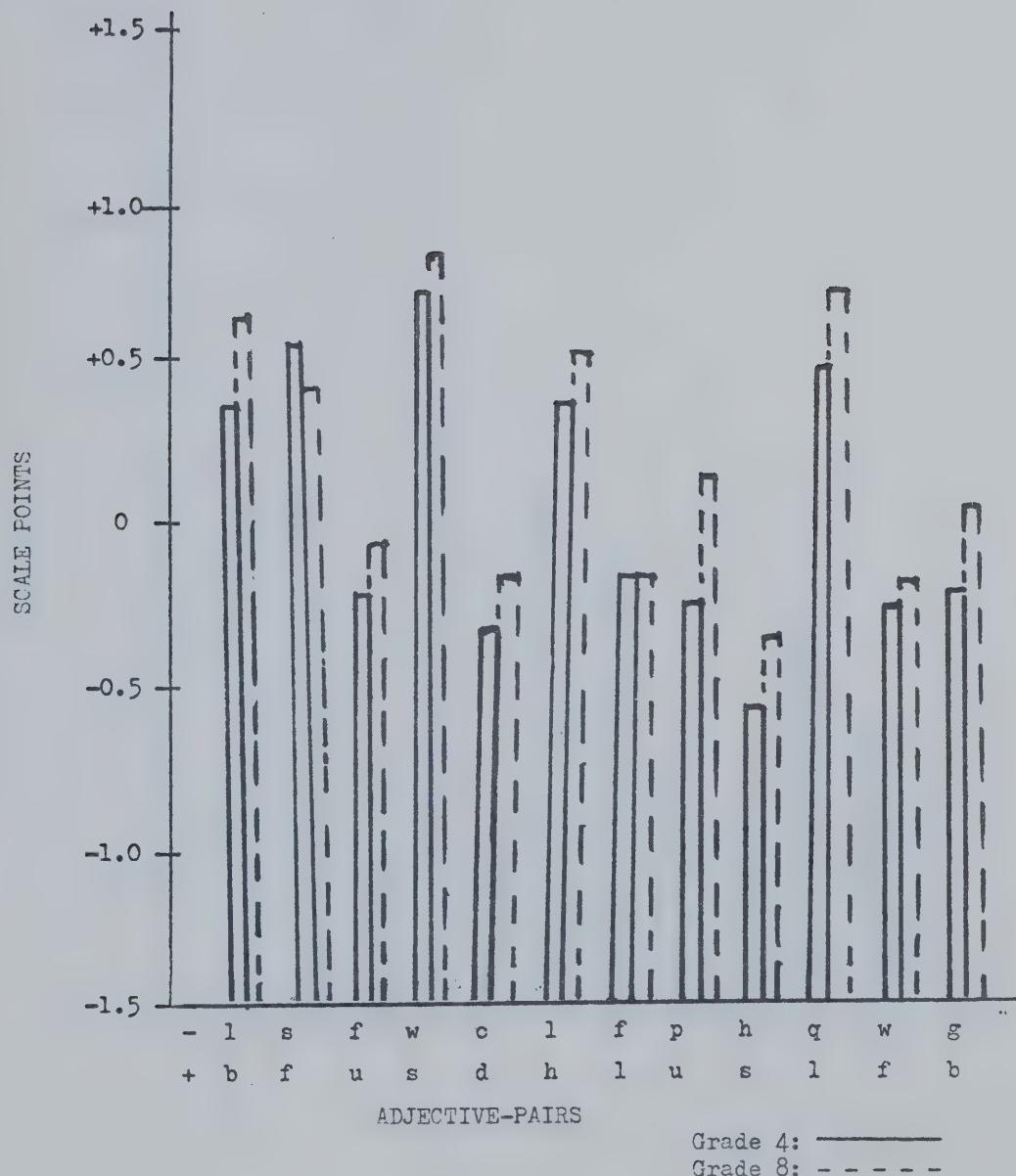


Figure 7. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "Russian"

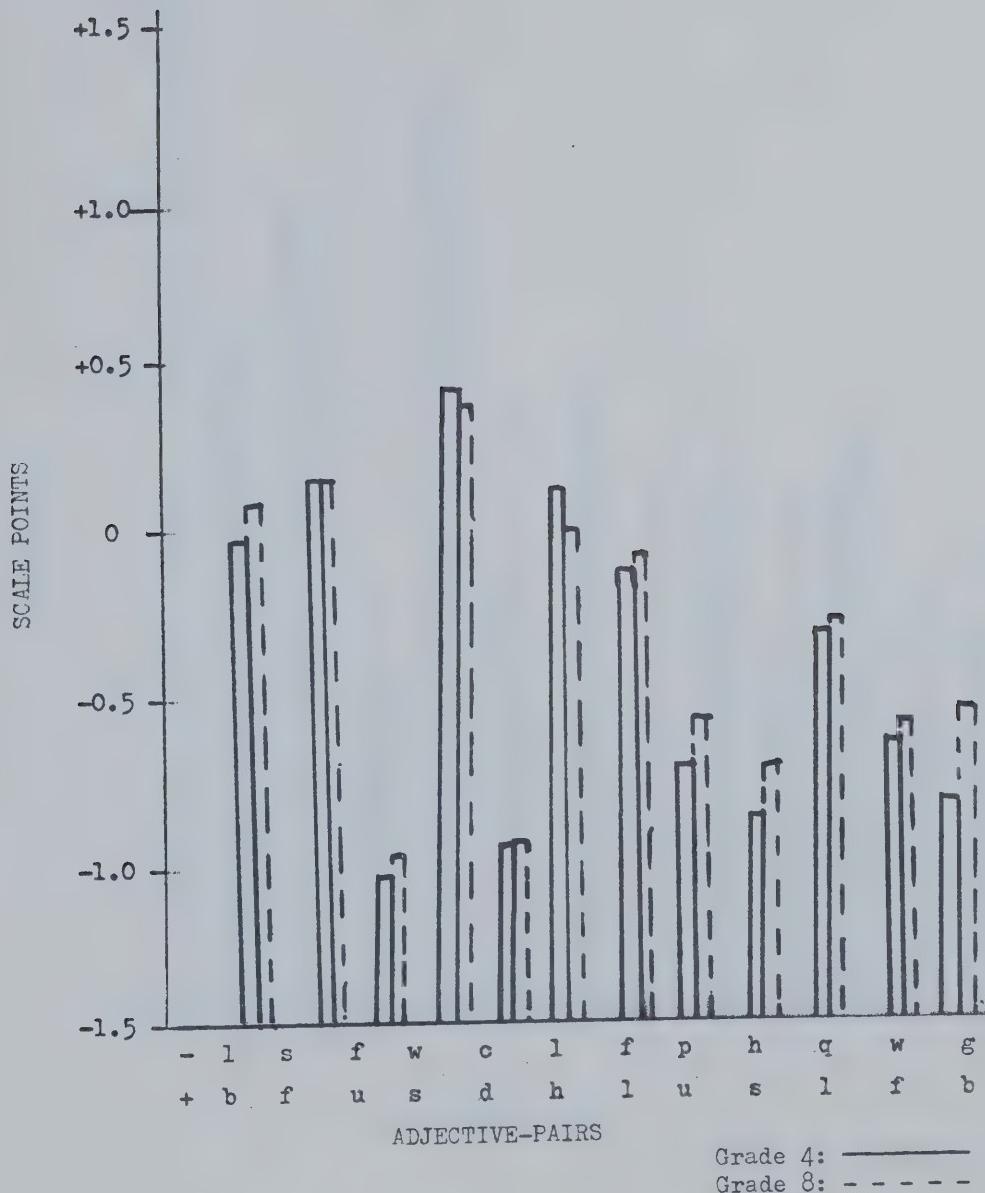


Figure 8. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "Dutch"

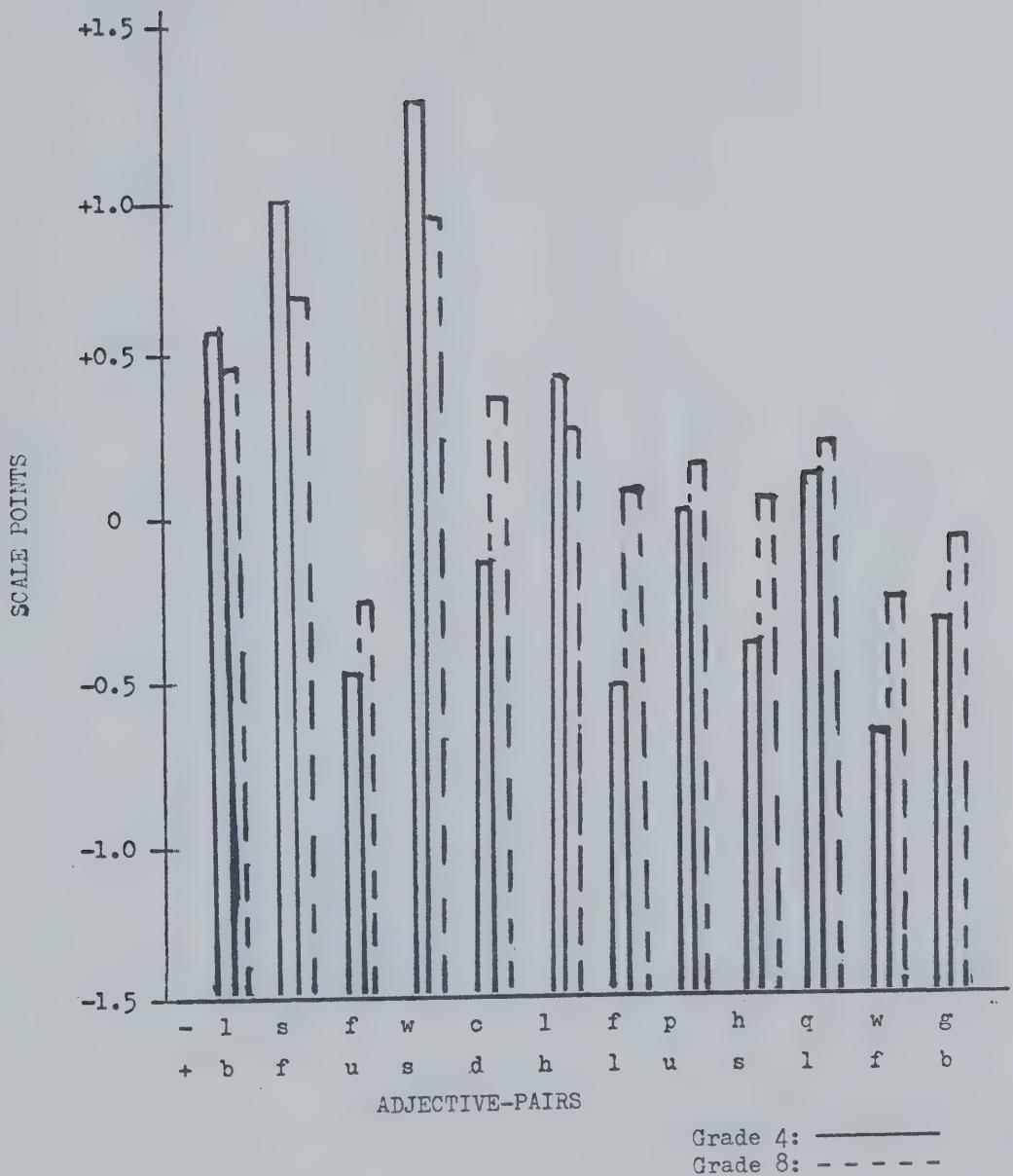


Figure 9. The Mean Scores of the Semantic Differential Adjective-pair for the Ethnic Concept "Canadian Indian"

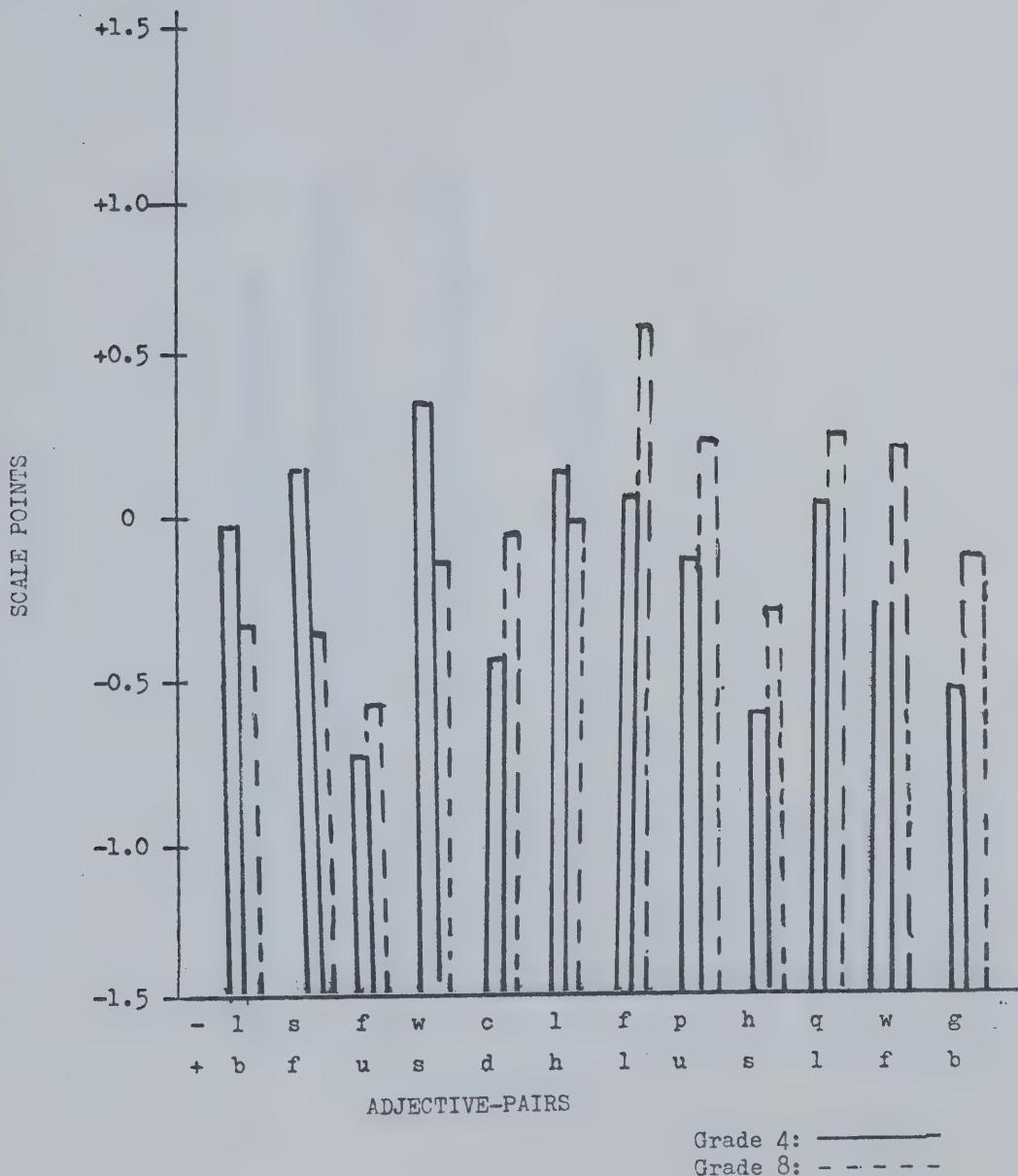


Figure 10. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "Ukrainian"

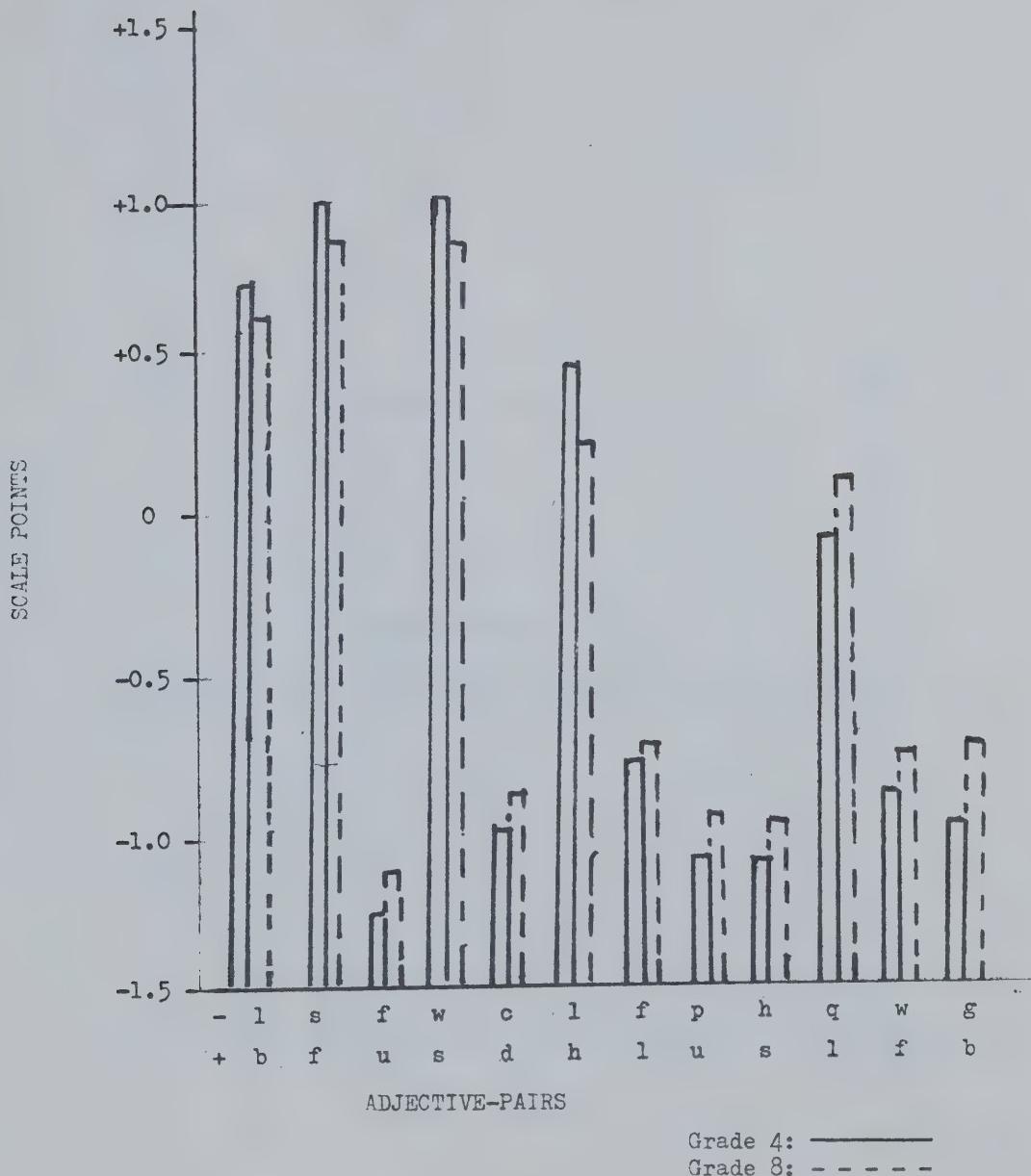


Figure 11. The Mean Scores of the Semantic Differential Adjective-pairs for the Ethnic Concept "Canadian"

A P P E N D I X D

Figures 12 to 23

Mean scores of semantic differential by adjective-pair

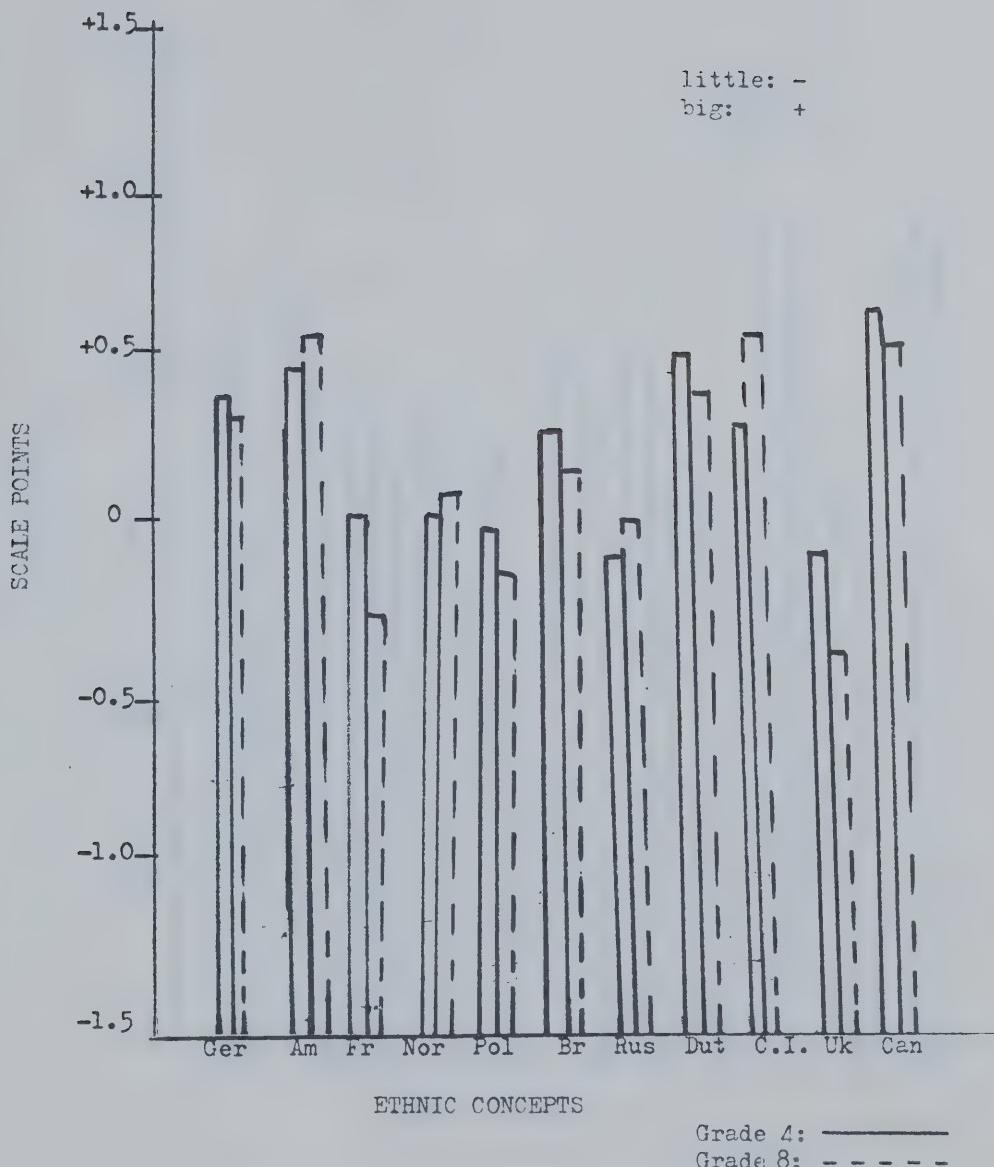


Figure 12. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "little-big"

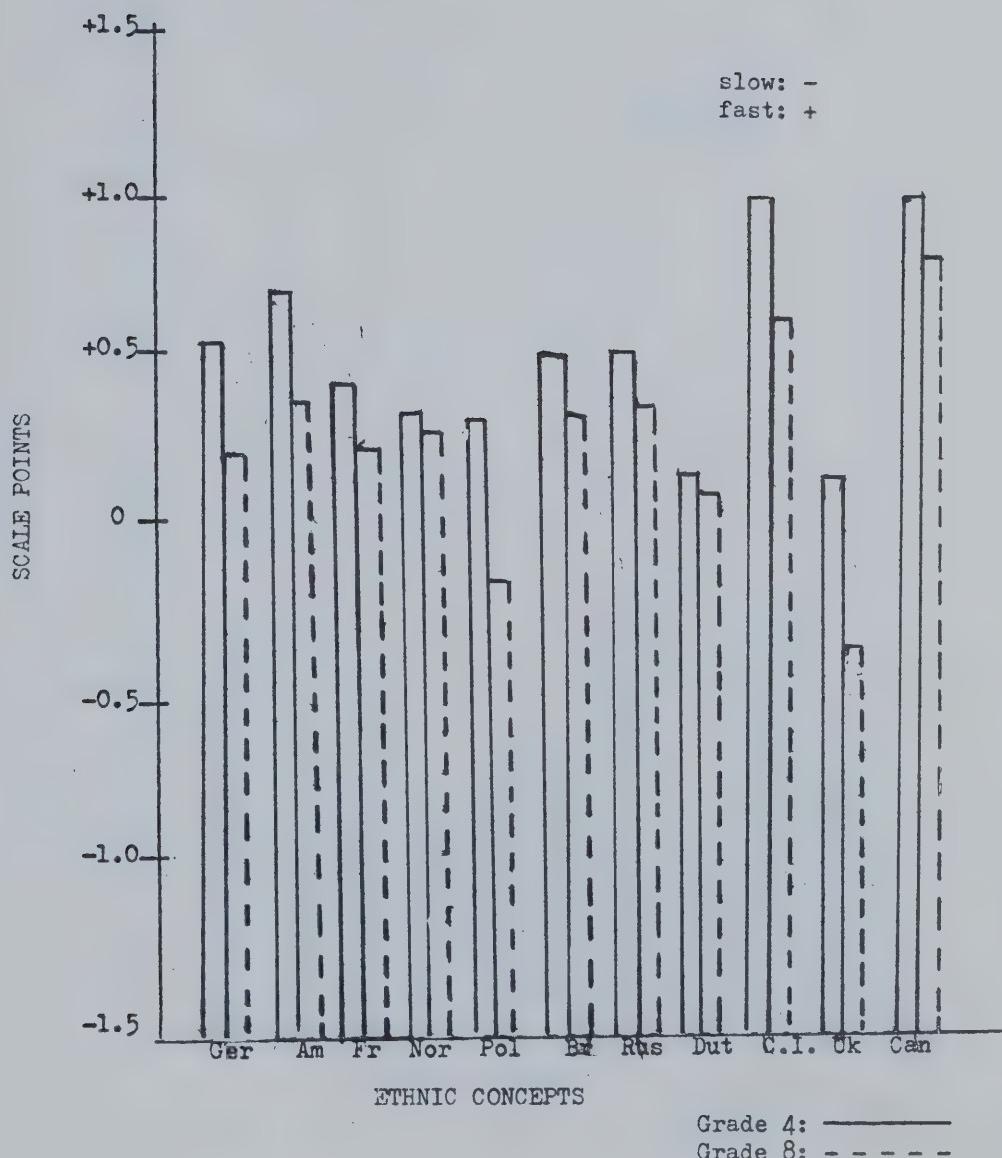


Figure 13. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "slow-fast"

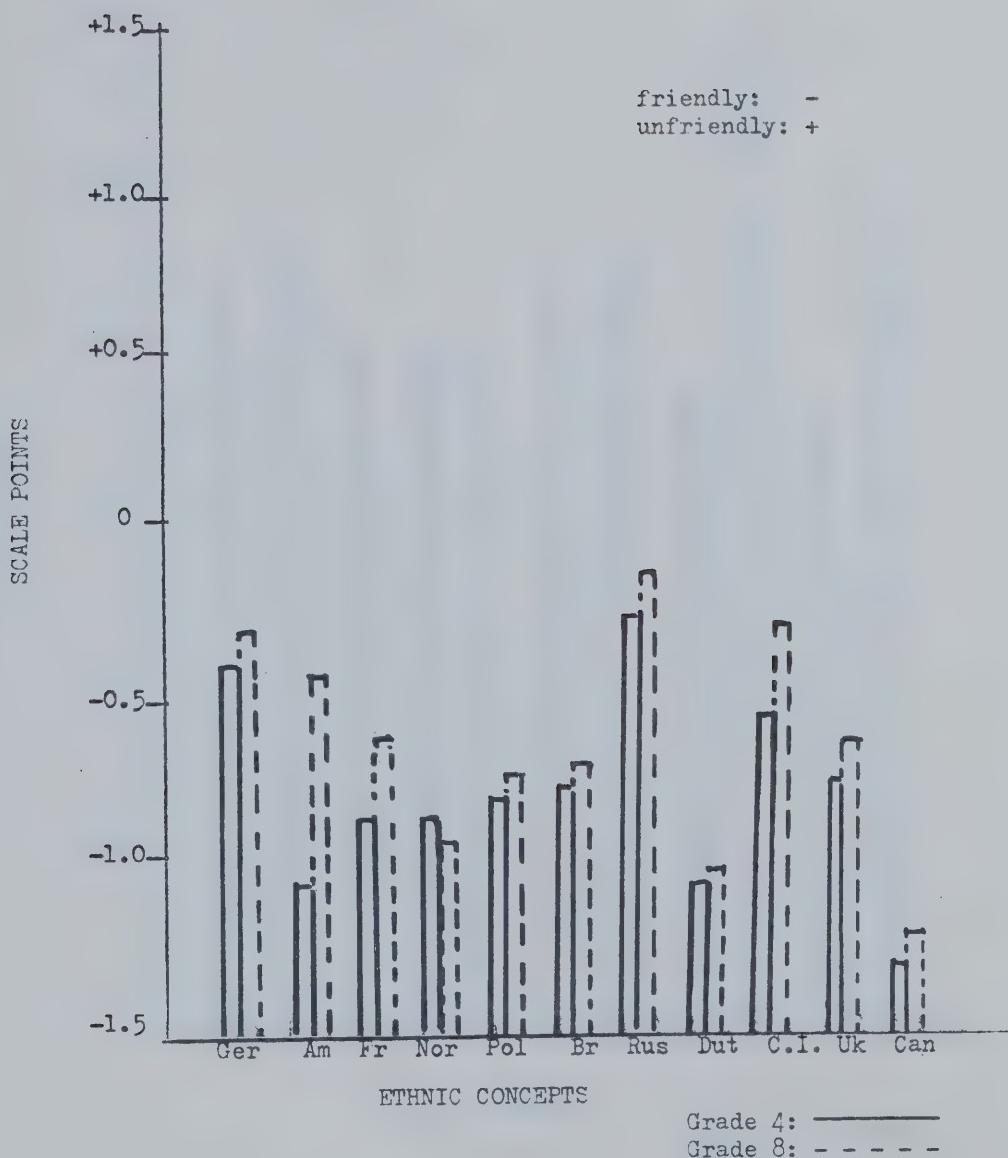


Figure 14. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "friendly-unfriendly"

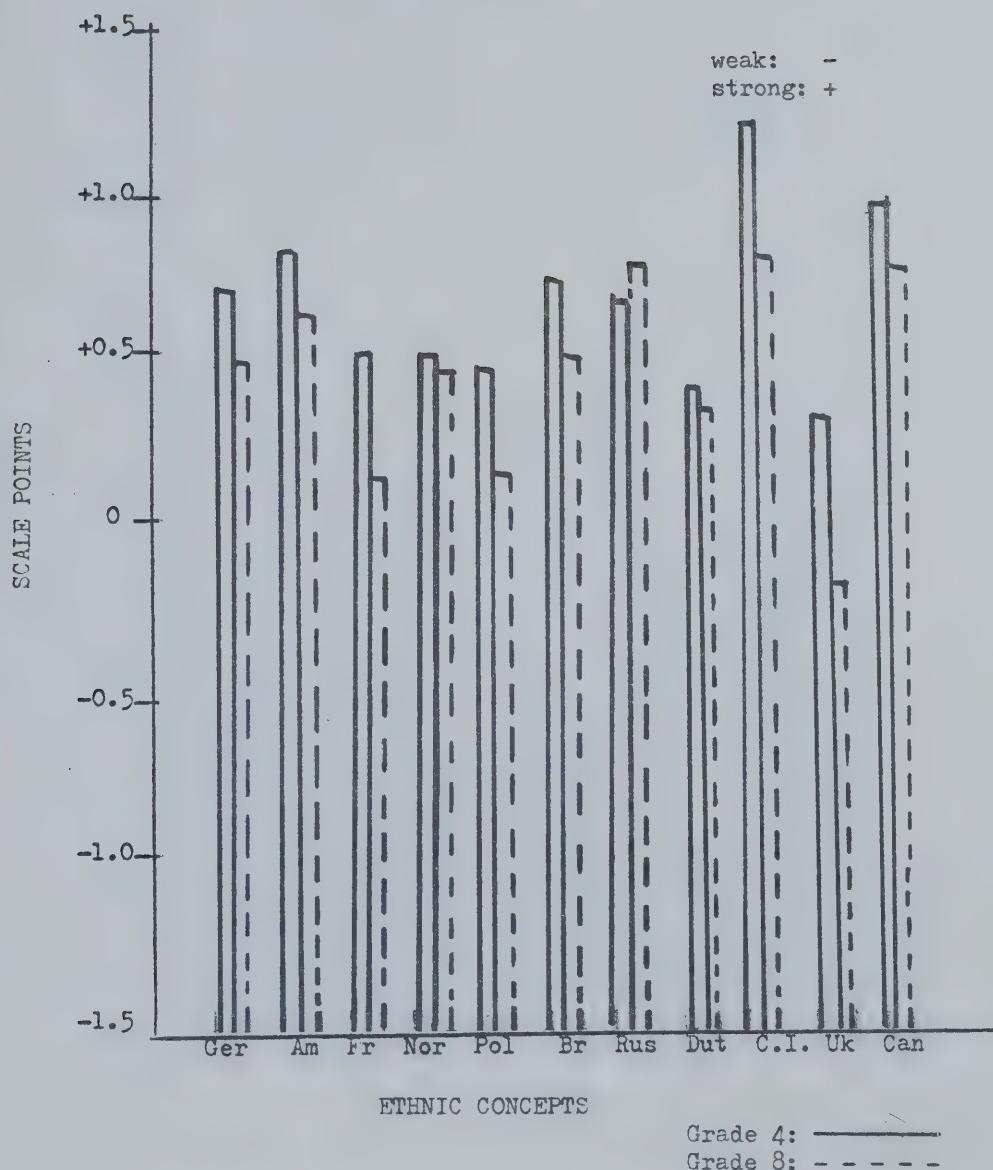


Figure 15. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "weak-strong"

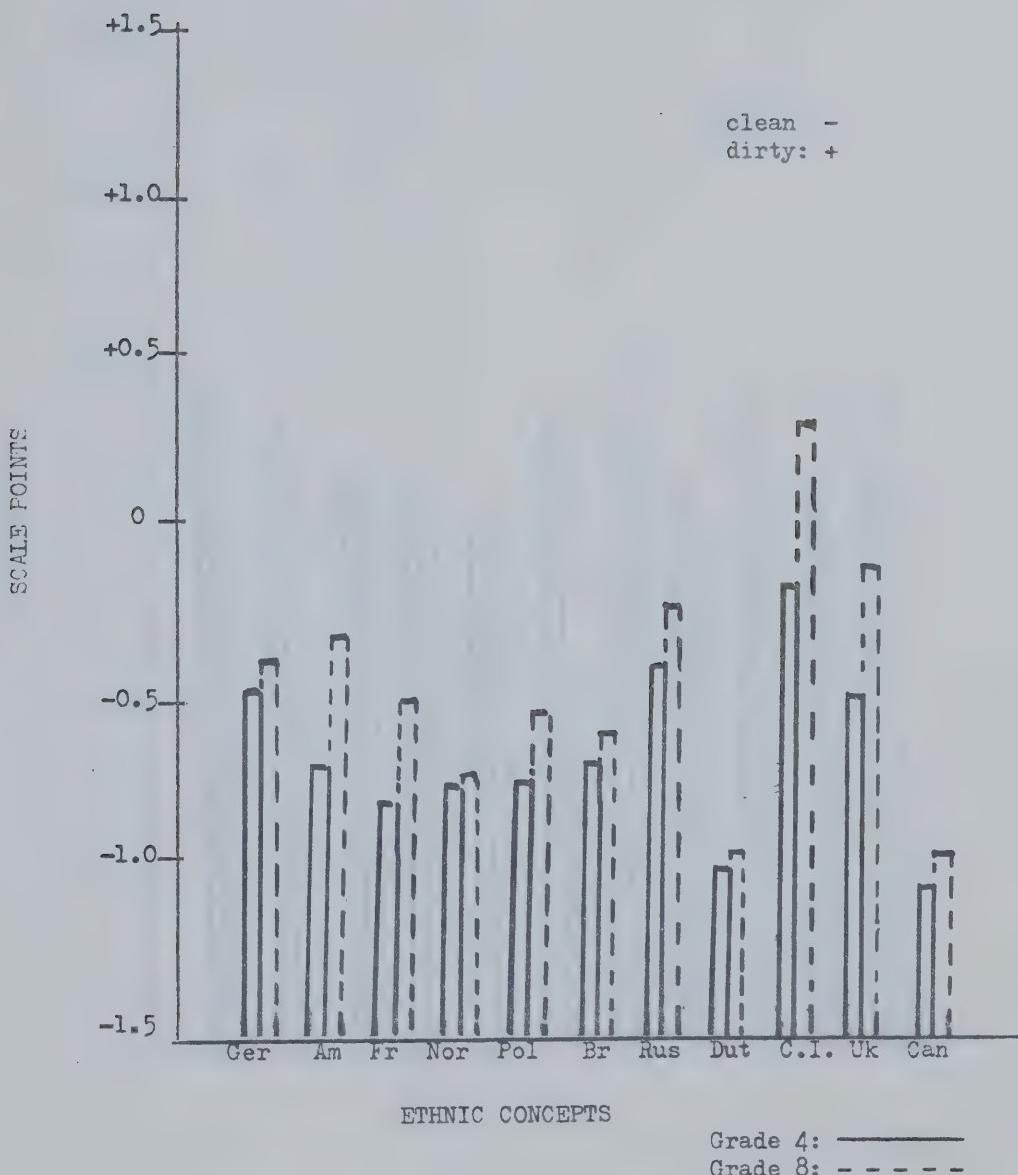


Figure 16. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "clean-dirty"

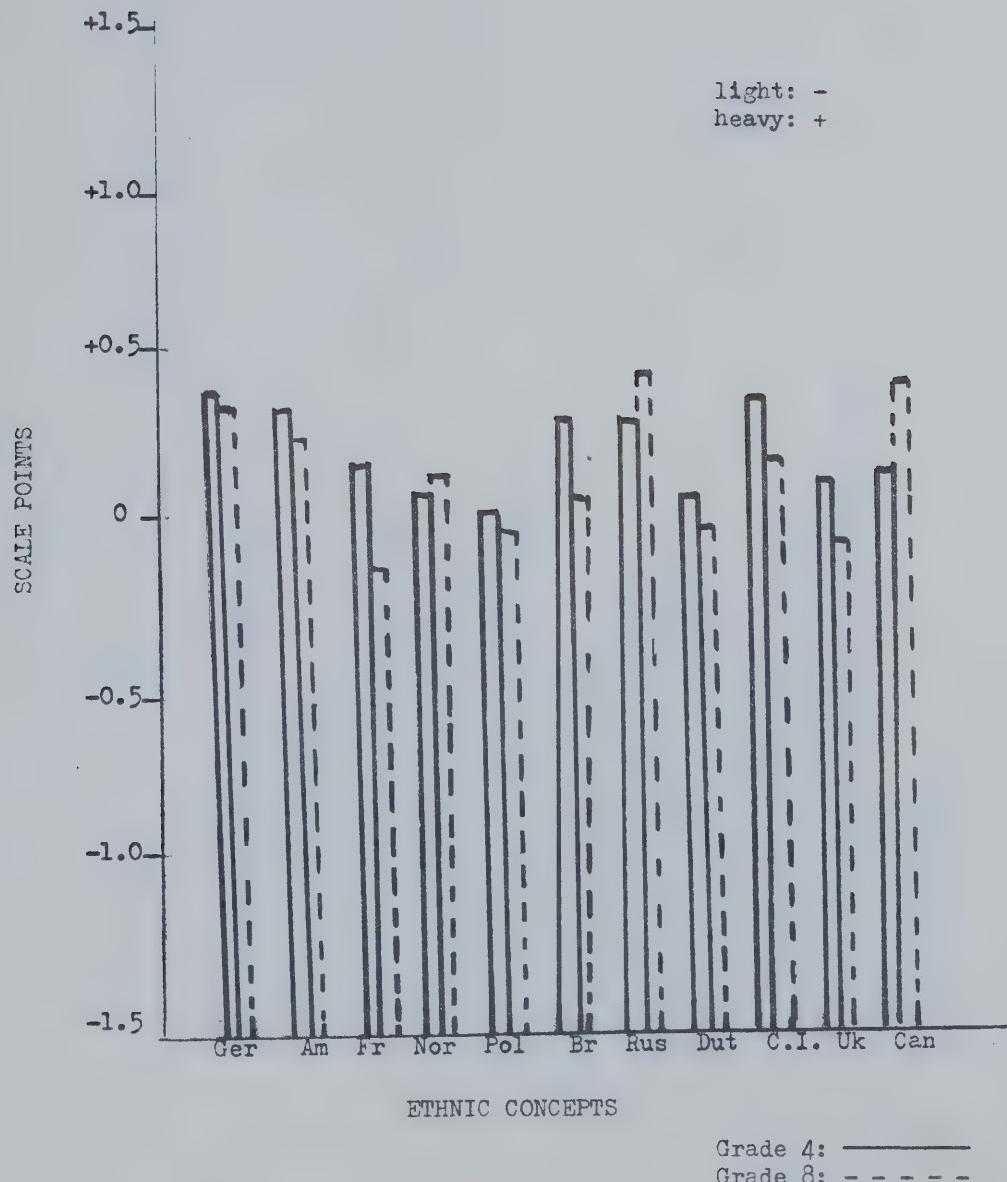


Figure 17. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "heavy-light"

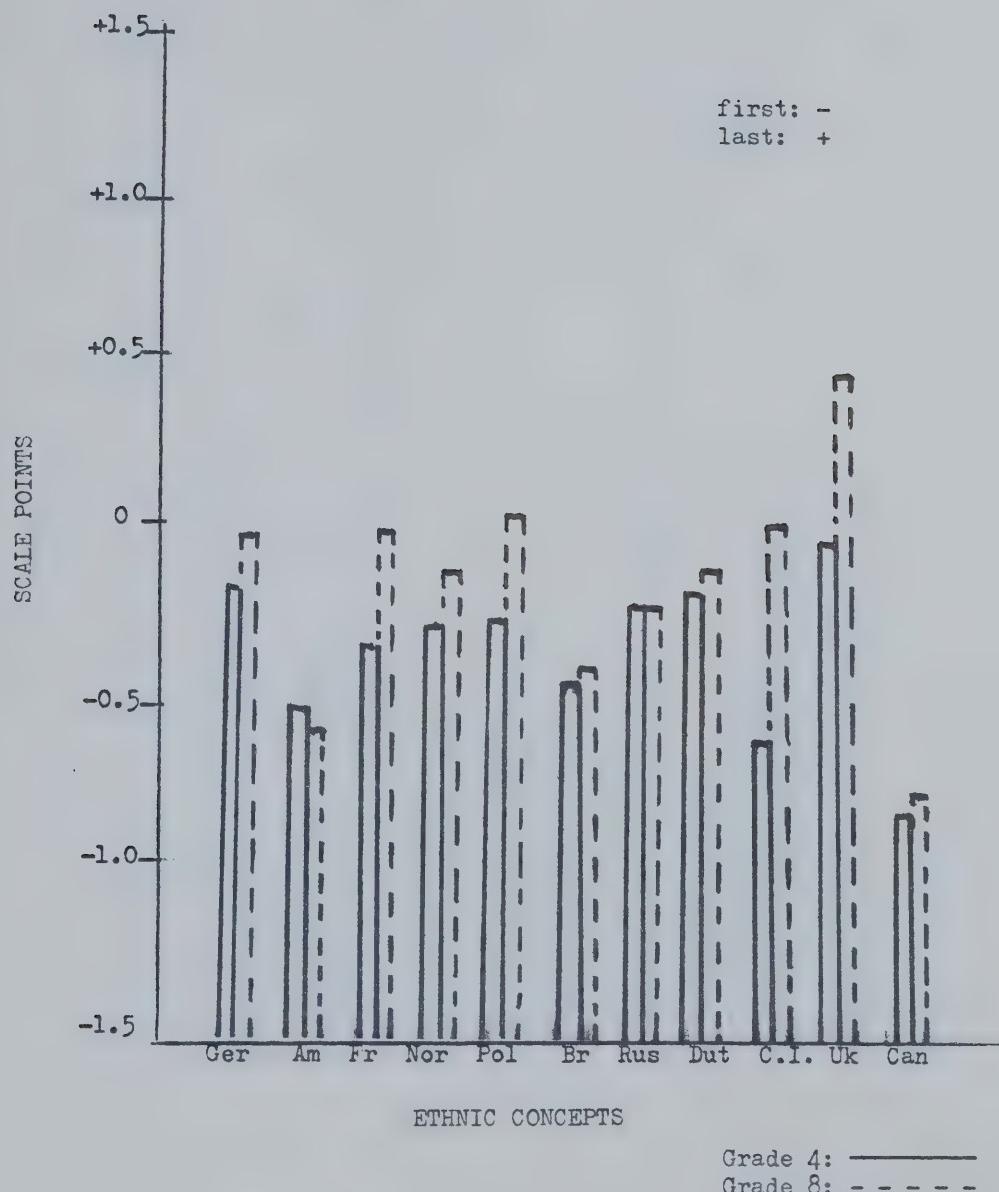


Figure 18. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "first-last"

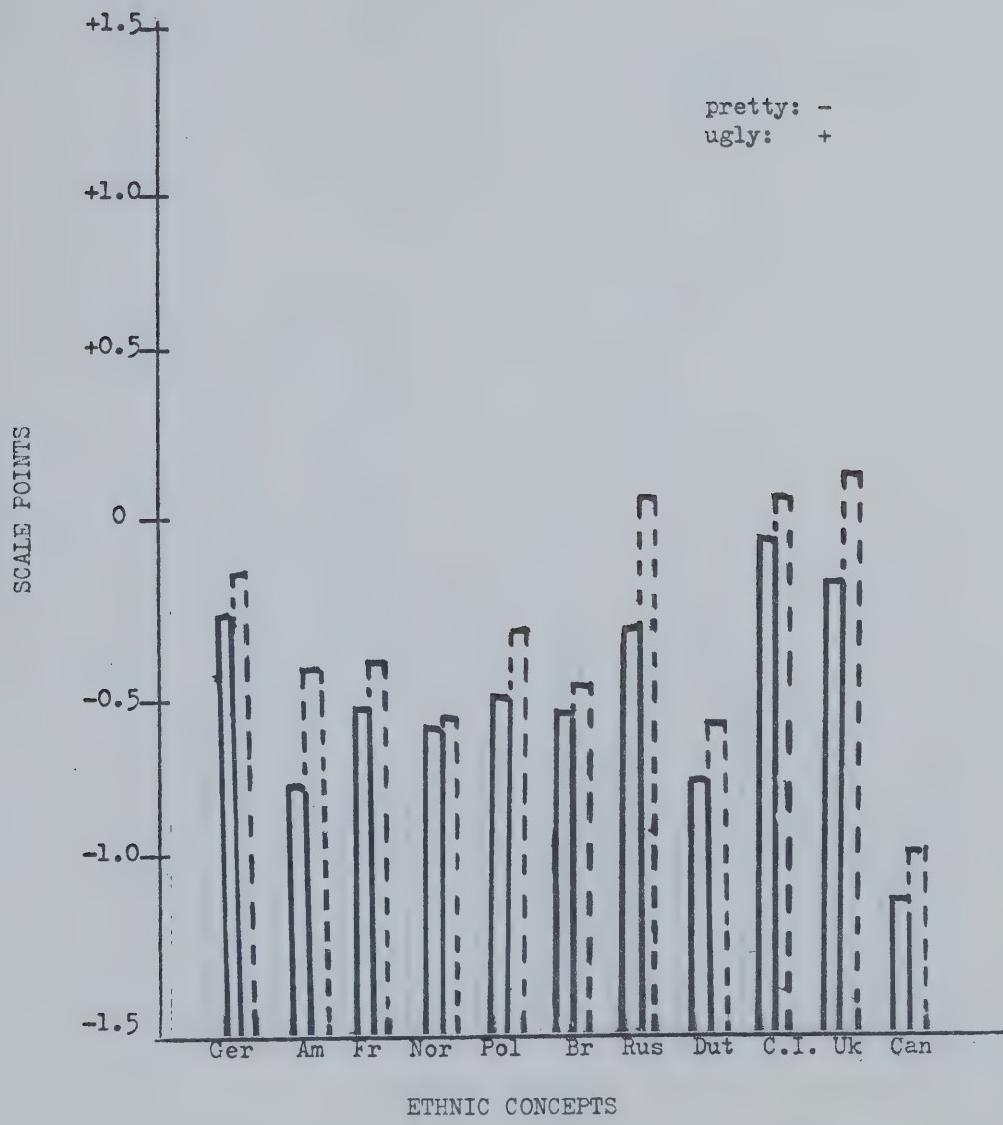


Figure 19. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "pretty-ugly"

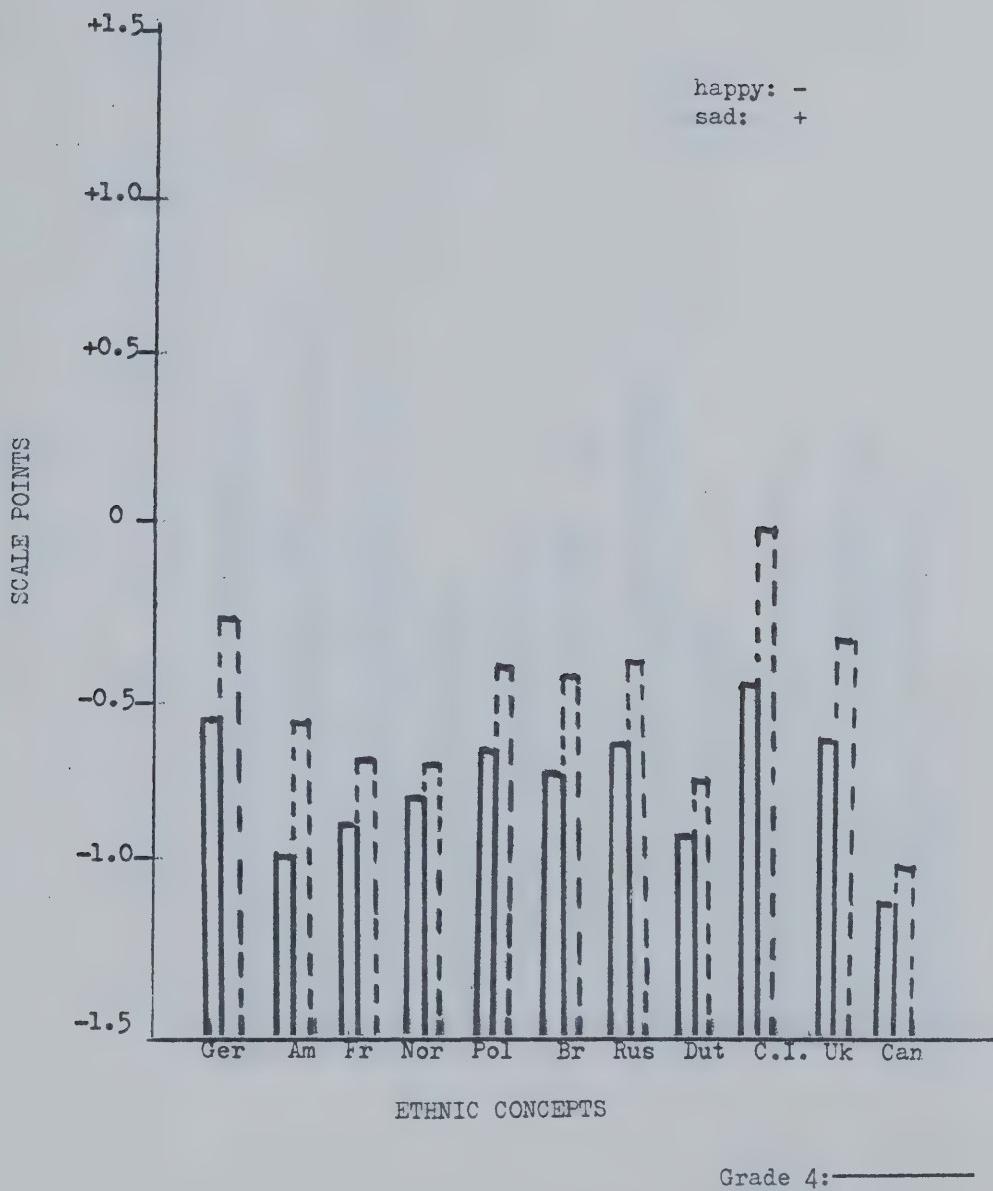


Figure 20. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "happy-sad"

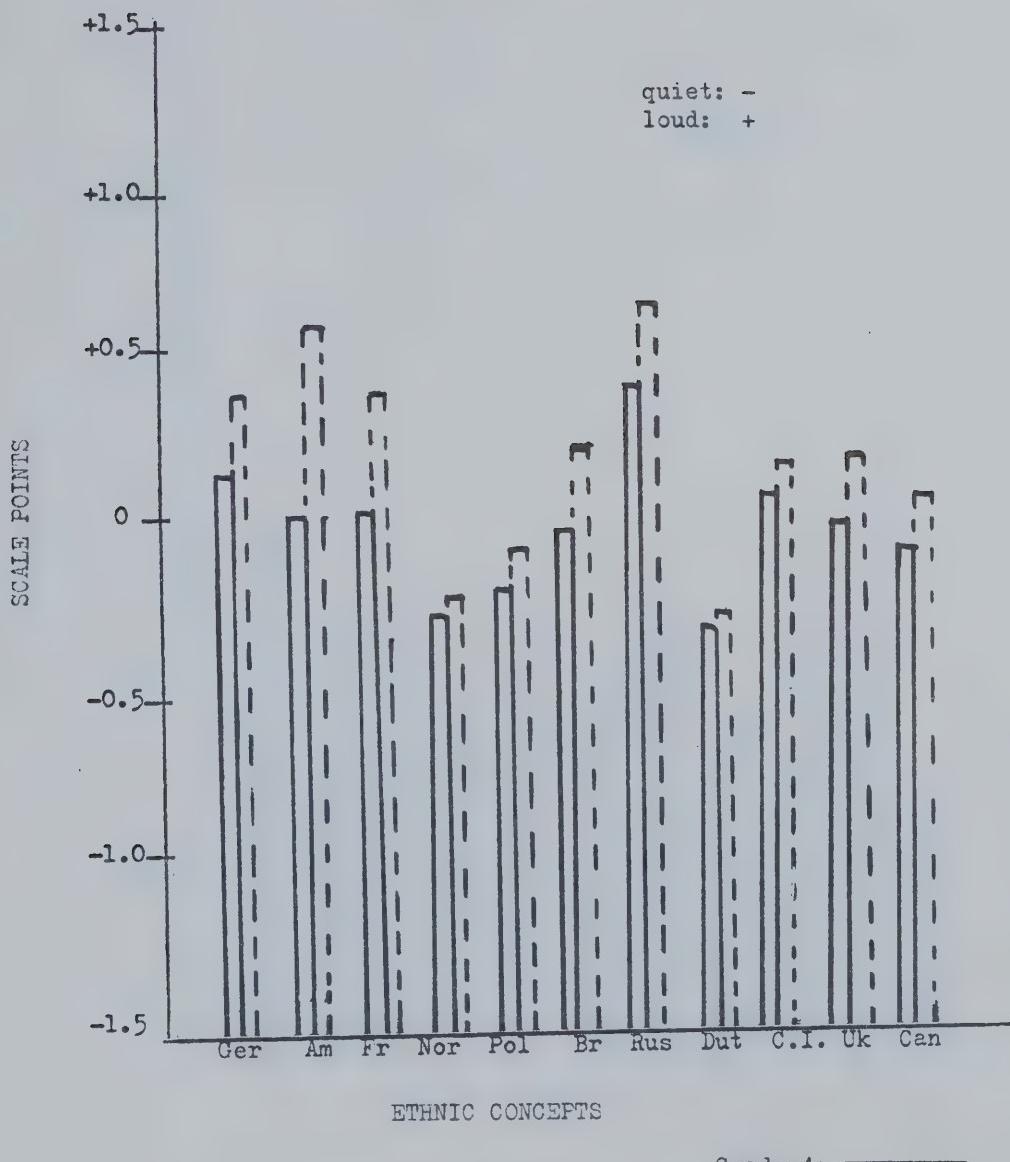


Figure 21. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "quiet-loud"

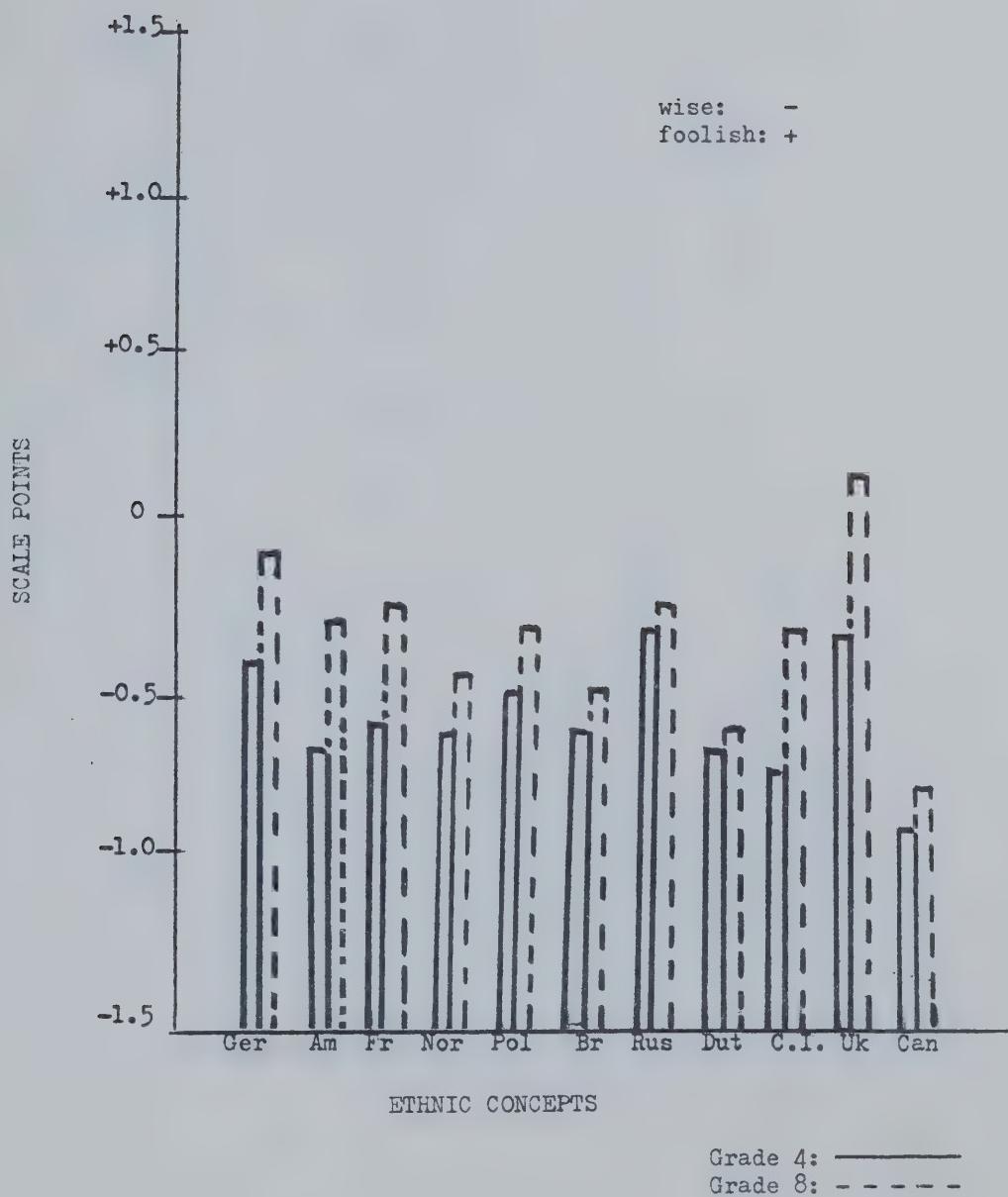


Figure 22. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "wise-foolish"

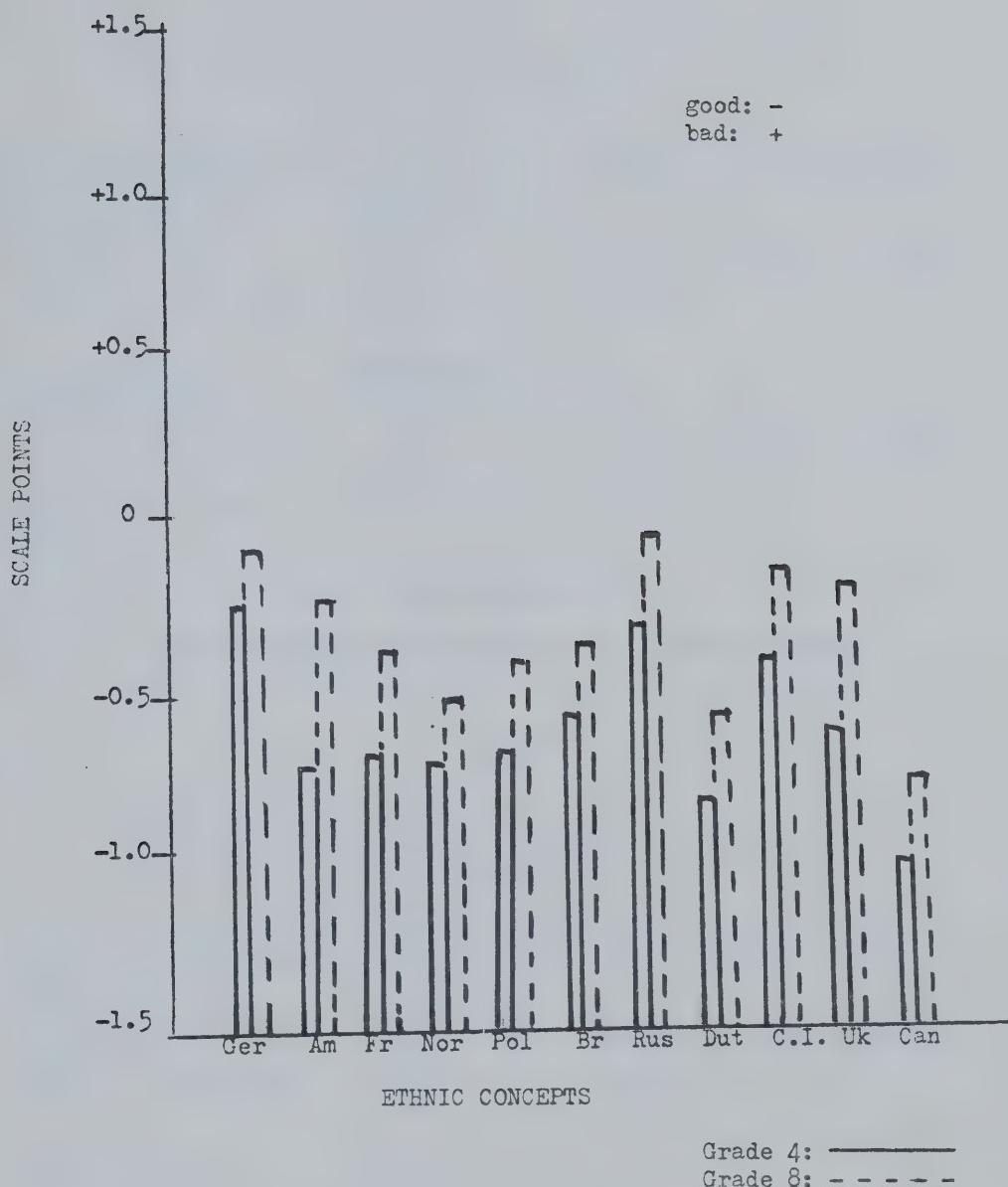


Figure 23. The Mean Scores for Each Ethnic Concept of the Semantic Differential Adjective-pair "good-bad"

A P P E N D I X E

Tables 26 - 37

Two way analysis of variance with repeated measures

TABLE 26

Analysis of Variance of Ratings on the Adjective-pair
"little-big"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1055.824</u>	<u>535</u>			
A (grade level)	6.073	1	6.073	3.089	0.0704058
Subjects within groups	1049.758	534	1.966		
<u>Within Subjects</u>	<u>5435.094</u>	<u>5360</u>			
B (ethnic group rated)	455.406	10	45.541	49.210	0.0000079
AB	44.761	10	4.476	4.837	0.0000519
Bx subjects within groups	4941.855	5340	0.925		

TABLE 27

Analysis of Variance of Ratings on the Adjective-pair
"slow-fast"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1177.312</u>	<u>535</u>			
A (grade level)	87.546	1	87.546	42.899	0.0000049
Subjects within groups	1089.750	534	2.041		
<u>Within Subjects</u>	<u>5360.562</u>	<u>5360</u>			
B (ethnic group rated)	499.741	10	49.974	55.254	0.0000027
AB	33.452	10	3.345	3.699	0.0001028
Bx subjects within groups	4829.750	5340	0.904		

TABLE 28

Analysis of Variance of Ratings on the Adjective-pair
"friendly-unfriendly"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1790.766</u>	<u>535</u>			
A (grade level)	34.288	1	34.288	10.424	0.0003326
Subjects within groups	1756.477	534	3.289		
<u>Within Subjects</u>	<u>5426.547</u>	<u>5360</u>			
B (ethnic group rated)	487.820	10	48.782	53.226	0.0000026
AB	45.062	10	4.506	4.917	0.0000591
Bx subjects within groups	4894.152	5340	0.917		

TABLE 29

Analysis of Variance of Ratings on the Adjective-pair
"weak-strong"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1317.625</u>	<u>535</u>			
A (grade level)	82.094	1	82.094	35.480	0.0000099
Subjects within groups	1235.562	534	2.314		
<u>Within Subjects</u>	<u>4714.750</u>	<u>5360</u>			
B (ethnic group rated)	410.730	10	41.073	51.440	0.0000036
AB	41.826	10	4.183	5.238	0.0000890
Bx subjects within groups	4263.813	5340	0.798		

TABLE 30

Analysis of Variance of Ratings on the Adjective-pair
"clean-dirty"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1797.531</u>	<u>535</u>			
A (grade level)	62.537	1	62.537	19.248	0.0000265
Subjects within groups	1734.992	534	3.249		
 <u>Within Subjects</u>	 <u>4948.367</u>	 <u>5360</u>			
B (ethnic group rated)	534.700	10	53.470	65.112	0.0000009
AB	41.307	10	4.131	5.030	0.0000997
Bx subjects within groups	4385.230	5340	0.821		

TABLE 31

Analysis of Variance of Ratings on the Adjective-pair
"light-heavy"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1082.164</u>	<u>535</u>			
A (grade level)	15.705	1	15.705	7.864	0.0052418
Subjects within groups	1066.484	534	1.997		
 <u>Within Subjects</u>	 <u>4264.000</u>	 <u>5360</u>			
B (ethnic group rated)	123.636	10	12.364	16.034	0.0000019
AB	24.221	10	2.422	3.141	0.0006466
Bx subjects within groups	4117.590	5340	0.771		

TABLE 32

Analysis of Variance of Ratings on the Adjective-pair
"first-last"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1012.258</u>	<u>535</u>			
A (grade level)	53.899	1	53.899	30.032	0.0000106
Subjects within groups	958.359	534	1.795		
 <u>Within Subjects</u>	 <u>4768.367</u>	 <u>5360</u>			
B (ethnic group rated)	402.027	10	40.203	49.804	0.0000097
AB	68.410	10	6.841	8.475	0.0000433
Bx subjects within groups	4310.563	5340	0.807		

TABLE 33

Analysis of Variance of Ratings on the Adjective-pair
"pretty-ugly"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1627.000</u>	<u>535</u>			
A (grade level)	54.743	1	54.743	18.593	0.0000315
Subjects within groups	1572.258	534	2.944		
 <u>Within Subjects</u>	 <u>4546.367</u>	 <u>5360</u>			
B (ethnic group rated)	561.848	10	56.185	75.671	0.0000059
AB	21.173	10	2.117	2.852	0.0016180
Bx subjects within groups	3964.867	5340	0.742		

TABLE 34

Analysis of Variance of Ratings on the Adjective-pair
"happy-sad"

Source of Variation	SS	df	MS	F	P
Between Subjects	<u>1638.297</u>	<u>535</u>			
A (grade level)	100.028	1	100.028	34.724	0.0000123
Subjects within groups	1538.266	534	2.881		
Within Subjects	<u>4309.820</u>	<u>5360</u>			
B (ethnic group rated)	285.036	10	28.504	37.919	0.0000072
AB	16.481	10	1.648	2.192	0.0158088
Bx subjects within groups	4014.066	5340	0.752		

TABLE 35

Analysis of Variance of Ratings on the Adjective-pair
"quiet-loud"

Source of Variation	SS	df	MS	F	P
Between Subjects	<u>1489.410</u>	<u>535</u>			
A (grade level)	53.854	1	53.854	20.032	0.0000221
Subjects within groups	1435.570	534	2.688		
Within Subjects	<u>5508.910</u>	<u>5360</u>			
B (ethnic group rated)	342.527	10	34.253	35.607	0.0000072
AB	41.550	10	4.155	4.319	0.0000619
Bx subjects within groups	5136.840	5340	0.962		

TABLE 36

Analysis of Variance of Ratings on the Adjective-pair
"wise-foolish"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1320.957</u>	<u>535</u>			
A (grade level)	88.382	1	88.382	38.290	0.0000068
Subjects within groups	1232.582	534	2.308		
<u>Within Subjects</u>	<u>4548.000</u>	<u>5360</u>			
B (ethnic group rated)	231.921	10	23.192	28.869	0.0000128
AB	31.423	10	3.142	3.911	0.0000861
Bx subjects within groups	4289.883	5340	0.803		

TABLE 37

Analysis of Variance of Ratings on the Adjective-pair
"good-bad"

Source of Variation	SS	df	MS	F	P
<u>Between Subjects</u>	<u>1508.180</u>	<u>535</u>			
A (grade level)	123.543	1	123.543	47.646	0.0000067
Subjects within groups	1384.633	534	2.593		
<u>Within Subjects</u>	<u>4195.094</u>	<u>5360</u>			
B (ethnic group rated)	274.912	10	27.491	37.622	0.0000018
AB	15.080	10	1.508	2.064	0.0240516
Bx subjects within groups	3902.031	5340	0.731		

A P P E N D I X . F

Table 38
Scheffé analysis of differences between grades

TABLE 38

Scheffé Analysis of Grade Differences

Adjective-pair	Ethnic Concepts						Uk.	Can.
	Ger.	Am.	Fr.	Nor.	Pol.	Br.		
little-big	0.343	0.730	0.004	0.490	0.253	0.181	0.025	0.366
slow-fast	0.014	0.099	0.118	0.600	0.000	0.130	0.208	0.802
friendly-unfriendly	0.423	0.300	0.128	0.585	0.727	0.647	0.427	0.839
weak-strong	0.101	0.157	0.003	0.622	0.323	0.006	0.555	0.768
clean-dirty	0.565	0.007	0.044	0.828	0.164	0.692	0.322	0.783
light-heavy	0.703	0.519	0.013	0.660	0.782	0.061	0.228	0.514
first-last	0.325	0.686	0.302	0.222	0.007	0.973	0.993	0.600
pretty-ugly	0.452	0.013	0.379	0.973	0.151	0.554	0.014	0.274
happy-sad	0.026	0.004	0.168	0.476	0.094	0.067	0.035	0.272
quiet-loud	0.121	0.000	0.022	0.593	0.329	0.082	0.064	0.955
wise-foolish	0.013	0.002	0.009	0.285	0.111	0.324	0.671	0.710
good-bad	0.227	0.000	0.026	0.130	0.037	0.119	0.102	0.049

A P P E N D I X G

Tables 39 - 50

Scheffé analysis of differences
between ethnic concepts for pooled grade scores

Table 39
Scheffé post-hoc analysis of the semantic-differential
adjective-pair "little-big"

Table 40
Scheffé post-hoc analysis of the semantic differential
adjective-pair "slow-fast"

Ethnic concept	Ger.—	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.137	0.999	0.984	0.005	1.000	1.000	0.007	0.000	0.000	0.000
American	1.000	0.010	0.001	0.000	0.466	0.378	0.000	0.413	0.000	0.014	
French	1.000	1.000	0.089	0.982	0.992	0.104	0.000	0.000	0.000	0.000	
Norwegian	1.000	0.345	0.829	0.886	0.378	0.000	0.000	0.000	0.000	0.000	
Polish	1.000	0.000	0.001	1.000	0.000	0.000	0.000	0.083	0.000		
British		1.000	1.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	
Russian			1.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	
Dutch				1.000	0.000	0.071	0.000	0.000	0.000	0.000	
Can. Ind.					1.000	0.000	0.000	0.000	0.000	0.992	
Ukrainian						1.000	0.000	0.000	0.000	0.000	
Canadian							1.000	0.000	0.000	0.000	1.000

Table 4
Scheffé post-hoc analysis of the semantic differential adjective-pair "friendly-unfriendly"

Table 42
Scheffé post-hoc analysis of the semantic-differential adjective-pair "weak-strong"

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.860	0.011	0.883	0.001	1.000	0.912	0.056	0.000	0.000	0.003
American	1.000	0.000	0.021	0.000	0.660	1.000	0.000	0.001	0.000	0.000	0.623
French	1.000	0.779	1.000	0.042	0.000	1.000	0.000	0.016	0.000	0.000	
Norwegian	1.000	0.469	0.972	0.035	0.949	0.000	0.000	0.000	0.000	0.000	
Polish	1.000	0.007	0.000	0.999	0.000	0.078	0.000	0.000	0.000	0.000	
British	1.000	0.747	0.156	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
Russian	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.527	
Dutch	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	
Can. Ind.							1.000	0.000	0.000	0.678	
Ukrainian								1.000	0.000	0.000	
Canadian									1.000	0.000	1.000

Table 43
Scheffé' post-hoc analysis of the semantic differential
adjective-pair "clean-dirty"

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.935	0.029	0.001	0.122	0.162	0.663	0.000	0.000	0.883	0.000
American	1.000	0.823	0.237	0.968	0.981	0.010	0.000	0.000	0.000	0.046	0.000
French	1.000	0.998	1.000	1.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000
Norwegian		1.000	0.981	0.968	0.000	0.097	0.000	0.000	0.000	0.026	
Polish		1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
British			1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Russian				1.000	0.000	0.000	1.000	1.000	0.000	0.000	
Dutch					1.000	0.000	0.000	0.000	0.000	1.000	
Can. Ind.						1.000	0.000	0.000	0.000	0.000	
Ukrainian							1.000	0.000	0.000	0.000	
Canadian								1.000	0.000	0.000	1.000

Table 44
Scheffé' post-hoc analysis of the semantic differential
adjective-pair "light-heavy"

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.991	0.000	0.006	0.000	0.576	1.000	0.000	0.980	0.000	0.993
American	1.000	0.009	0.311	0.002	0.997	0.997	0.001	1.000	0.002	1.000	
French	1.000	0.994	1.000	0.263	0.000	1.000	0.015	1.000	0.007		
Norwegian	1.000	0.969	0.936	0.012	0.949	0.400	0.959	0.278			
Polish	1.000	0.126	0.000	1.000	0.004	1.000	0.002				
British	1.000	0.690	0.092	0.998	0.108	0.995					
Russian	1.000	0.000	0.992	0.000	0.997						
Dutch			1.000	0.003	1.000	0.001					
Can. Ind.				1.000	0.003	1.000	0.001				
Ukrainian					1.000	0.001					
Canadian							1.000				

Table 45

Scheffé' post-hoc analysis of the semantic differential adjective-pair "first-last"

Table 46

Scheffé post-hoc analysis of the semantic differential adjective-pair "pretty-ugly"

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.000	0.006	0.000	0.070	0.001	0.919	0.000	0.033	0.424	0.000
American	1.000	0.484	1.000	0.115	0.815	0.000	1.000	0.000	0.000	0.000	0.000
French	1.000	0.879	0.999	1.000	0.000	0.125	0.000	0.000	0.000	0.000	0.000
Norwegian	1.000	0.464	0.988	0.000	0.988	0.000	0.000	0.000	0.000	0.000	0.000
Polish	1.000	0.993	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000
British	1.000	0.000	0.386	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Russian	1.000	0.000	0.868	0.999	0.999	0.000	0.000	0.000	0.000	0.000	0.000
Dutch	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Can. Ind.							1.000	0.998	0.000	0.000	0.000
Ukrainian								1.000	0.000	0.000	0.000
Canadian									1.000	0.000	1.000

Table 47

Scheffé post-hoc analysis of the semantic-differential adjective-pair "happy-sad"

Table 48

Scheffé post-hoc analysis of the semantic-differential adjective-pair "quiet-loud"

Scheffé post-hoc analysis of the semantic differential
adjective-pair "wise-foolish"

Table 50

Schaffé post-hoc analysis of the semantic differential adjective-pair "good-bad"

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	—Can.
German	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.971	0.018	0.000	
American	1.000	1.000	0.792	0.999	1.000	0.000	0.065	0.014	0.963	0.000	
French	1.000	0.945	1.000	0.998	0.000	0.195	0.003	0.836	0.000		
Norwegian		1.000	0.995	0.373	0.000	0.984	0.000	0.037	0.007		
Polish			1.000	0.968	0.000	0.471	0.000	0.551	0.000		
British				1.000	0.000	0.006	0.117	0.999	0.000		
Russian					1.000	0.000	0.971	0.018	0.000		
Dutch						1.000	0.000	0.000	0.392		
Can. Ind.							1.000	0.631	0.000		
Ukrainian								1.000	0.200		
Canadian									1.000		

A P P E N D I X H

Tables 51 - 62
Scheffé analysis of differences
between ethnic concepts for grade four

Table 51

Scheffé post-hoc analysis of the semantic differential adjective-pair "little-big" for grade 4

Table 52
Scheffé post-hoc analysis of the semantic differential adjective-pair "slow-fast" for grade 4

Table 53

Scheffé post-hoc analysis of the semantic differential adjective-pair "friendly-unfriendly" for grade 4

Scheffé post-hoc analysis of the semantic differential adjective-pair "weak-strong" for grade 4

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.992	0.811	0.744	0.295	1.000	1.000	0.058	0.000	0.002	0.183
American	1.000	0.104	0.073	0.006	1.000	0.979	0.000	0.001	0.000	0.000	0.905
French	1.000	1.000	1.000	0.502	0.893	0.977	0.000	0.602	0.000		
Norwegian	1.000	1.000	0.420	0.843	0.988	0.000	0.683	0.000			
Polish	1.000	0.092	0.412	1.000	0.000	0.964	0.000				
British	1.000	1.000	0.010	0.000	0.000	0.000	0.000	0.464	0.000		
Russian	1.000	0.101	0.000	0.000	0.000	0.000	0.004	0.114	0.000		
Dutch					1.000	0.000	0.999	0.000	0.000	0.000	
Can. Ind.						1.000	0.000	0.000	0.302	0.000	
Ukrainian							1.000	0.000	0.000	0.000	
Canadian								1.000	0.000	0.000	1.000

Scheffé post-hoc analysis of the semantic differential adjective-pair "clean-dirty" for grade 4
Table 55

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.257	0.016	0.319	0.203	0.743	0.987	0.000	0.061	1.000	0.000
American	1.000	0.999	1.000	1.000	1.000	0.003	0.372	0.000	0.345	0.084	
French	1.000	0.998	0.999	0.934	0.000	0.916	0.000	0.028	0.572		
Norwegian	1.000	1.000	1.000	0.005	0.306	0.000	0.415	0.061			
Polish	1.000	0.999	0.002	0.444	0.000	0.281	0.115				
British	1.000	0.055	0.061	0.000	0.826	0.006					
Russian	1.000	0.000	0.762	0.972	0.000						
Dutch	1.000	0.000	0.000	0.000	1.000						
Can. Ind.					1.000	0.037	0.000				
Ukrainian						1.000	0.000	0.000			
Canadian							1.000	0.000			

Table 56

Scheffé post-hoc analysis of the semantic differential adjective-pair "light-heavy" for grade 4

Table 57

Scheffé post-hoc analysis of the semantic differential adjective-pair "first-last" for grade 4

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	—Can.
German	1.000	0.003	0.776	0.990	0.996	0.120	1.000	0.000	0.897	0.000	
American	1.000	0.712	0.211	0.159	0.998	0.023	0.002	1.000	0.000	0.452	
French	1.000	1.000	0.999	0.997	0.963	0.732	0.407	0.013	0.000		
Norwegian	1.000	1.000	0.854	1.000	0.985	0.064	0.159	0.000			
Polish	1.000	0.794	1.000	0.993	0.043	0.211	0;000				
British	1.000	0.379	0.097	0.970	0.000	0.033					
Russian	1.000	1.000	0.004	0.611	0.000						
Dutch		1.000	0.000	0.921	0.000						
Can. Ind.			1.000	0.000	0.752						
Ukrainian				1.000	0.000						
Canadian					1.000						

Scheffé post-hoc analysis of the semantic differential adjective-pair "pretty-ugly" for grade 4
Table 58

Table - 59

Scheffé post-hoc analysis of the semantic differential adjective-pair "happy-sad" for grade 4

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.000	0.060	0.390	0.727	0.885	1.000	0.014	0.985	1.000	0.000
American	1.000	0.990	0.779	0.451	0.254	0.010	0.999	0.000	0.010	0.953	
French	1.000	1.000	0.990	0.953	0.390	1.000	0.000	0.000	0.390	0.254	
Norwegian	1.000	1.000	1.000	0.872	0.994	0.007	0.872	0.007	0.872	0.028	
Polish	1.000	1.000	0.984	0.929	0.046	0.984	0.004	0.046	0.984	0.004	
British	1.000	0.998	0.803	0.119	0.998	0.001	0.998	0.001	0.998	0.001	
Russian	1.000	0.164	0.734	1.000	1.000	0.000	0.000	0.000	0.000	0.000	
Dutch		1.000	0.000	0.164	0.522						
Can. Ind.			1.000	0.734	0.000						
Ukrainian				1.000	0.000						
Canadian					1.000	0.000					

Table 60

Scheffé' post-hoc analysis of the semantic differential adjective-pair "quiet-loud" for grade 4

Table 61.

Scheffe post-hoc analysis of the semantic differential adjective-pair "wise-foolish" for grade 4

A P P E N D I X I

Tables 63 - 74

Scheffé analysis of differences
between ethnic concepts for grade eight

Table 64

Scheffé post-hoc analysis of the semantic-differential adjective-pair "slow-fast" for grade 8

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.400	1.000	1.000	0.015	0.999	0.997	0.989	0.045	0.000	0.000
American	1.000	0.426	0.616	0.000	0.946	0.962	0.009	0.999	0.000	0.311	
French	1.000	1.000	0.013	0.999	0.998	0.986	0.051	0.000	0.000		
Norwegian	1.000	0.004	1.000	1.000	0.946	0.116	0.000	0.000	0.000		
Polish	1.000	0.000	0.000	0.484	0.000	0.738	0.000				
British	1.000	1.000	0.616	0.484	0.000	0.000	0.000	0.001			
Russian	1.000	0.563	0.537	0.000	0.000	0.000	0.000	0.002			
Dutch	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Can. Ind.						1.000	0.000	0.000	0.861		
Ukrainian							1.000	0.000	0.000		
Canadian								1.000	0.000	1.000	

Table 65

Scheffé post-hoc analysis of the semantic-differential
adjective-pair "friendly-unfriendly" for grade 8

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.-F.	Uk.	Can.
German	1.000	0.989	0.193	0.000	0.002	0.009	0.980	0.000	1.000	0.133	0.000
American		1.000	0.931	0.000	0.177	0.388	0.340	0.000	0.999	0.882	0.000
French			1.000	0.120	0.986	0.999	0.001	0.007	0.438	1.000	0.000
Norwegian				1.000	0.882	0.677	0.000	0.999	0.000	0.177	0.575
Polish					1.000	1.000	0.000	0.369	0.010	0.995	0.003
British						1.000	0.000	0.165	0.042	1.000	0.000
Russian							1.000	0.000	0.882	0.001	0.000
Dutch								1.000	0.000	0.012	0.963
Can. Ind.									1.000	0.340	0.000
Ukrainian										1.000	0.000
Canadian											1.000

Table 66

Scheffé post-hoc analysis of the semantic differential adjective-pair "weak-strong" for grade 8

Table 6

Scheffé post-hoc analysis of the semantic differential adjective-pair "clean-dirty" for grade 8

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	1.000	0.992	0.019	0.975	0.679	0.872	0.000	0.000	0.251	0.000
American	1.000	0.855	0.001	0.747	0.251	0.994	0.000	0.000	0.679	0.000	
French	1.000	0.481	1.000	0.999	0.144	0.002	0.000	0.000	0.004	0.003	
Norwegian	1.000	0.625	0.963	0.000	0.902	0.000	0.000	0.000	0.000	0.926	
Polish	1.000	1.000	0.081	0.005	0.000	0.000	0.000	0.002	0.007		
British	1.000	0.005	0.081	0.000	0.000	0.000	0.000	0.000	0.102		
Russian	1.000	0.000	0.000	0.000	0.000	0.000	0.998	0.000			
Dutch	1.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000			
Can. Ind.							1.000	0.002	0.000		
Ukrainian								1.000	0.000		
Canadian									1.000		

Table 68

Scheffé post-hoc analysis of the semantic-differential adjective-pair "light-heavy" for grade 8

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.998	0.000	0.705	0.025	0.398	0.999	0.007	0.955	0.001	0.826
American	1.000	0.009	0.996	0.392	0.955	0.806	0.205	1.000	0.075	0.999	
French	1.000	0.296	0.990	0.596	0.000	0.999	0.066	1.000	0.186		
Norwegian	1.000	0.968	1.000	0.134	0.885	1.000	0.685	1.000	0.685	1.000	
Polish	1.000	0.998	0.000	1.000	0.755	1.000	0.923				
British	1.000	0.034	0.983	0.998	0.910	1.000					
Russian	1.000	0.000	0.454	0.000	0.224						
Dutch	1.000	0.539	1.000	0.784							
Can. Ind.					1.000	0.290	1.000				
Ukrainian						1.000	0.539				
Canadian							1.000				

Table 69
Scheffé post-hoc analysis of the semantic differential
adjective-pair "first-last" for grade 8

Table 7

Scheffé post-hoc analysis of the semantic differential adjective-pair "pretty-ugly" for grade 8

Table 71

Scheffé post-hoc analysis of the semantic differential adjective-pair "happy-sad" for grade 8

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.096	0.001	0.000	0.903	0.633	0.957	0.000	0.496	0.998	0.000
American	1.000	0.995	0.972	0.972	0.999	0.931	0.814	0.000	0.661	0.001	
French	1.000	1.000	0.377	0.720	0.254	0.999	0.000	0.058	0.075		
Norwegian	1.000	0.207	0.518	0.124	1.000	0.000	0.000	0.021	0.170		
Polish	1.000	1.000	1.000	0.051	0.002	1.000	1.000	0.000	0.000		
British	1.000	1.000	0.207	0.000	0.991	0.000	0.991	0.000	0.000		
Russian	1.000	0.025	0.006	1.000	1.000	1.000	1.000	0.000	0.000		
Dutch		1.000	0.000	0.002	0.460						
Can. Ind.			1.000	0.046	0.000						
Ukrainian				1.000	0.000						
Canadian					1.000						

Table 72

Scheffe post-hoc analysis of the semantic differential adjective-pair "quiet-loud" for grade 8

Ethnic concept	Ger.	Am.	Fr.	Nor.	Pol.	Br.	Rus.	Dut.	C.I.	Uk.	Can.
German	1.000	0.870	1.000	0.000	0.005	0.975	0.357	0.000	0.781	0.950	0.231
American	1.000	0.801	0.000	0.000	0.080	1.000	0.000	0.010	0.049	0.000	
French	1.000	0.000	0.009	0.988	0.270	0.000	0.854	0.974	0.312		
Norwegian	1.000	0.687	0.000	0.000	1.000	0.003	0.000	0.070			
Polish	1.000	0.405	0.000	0.614	0.796	0.512	0.995				
British	1.000	0.004	0.000	1.000	1.000	1.000	0.975				
Russian	1.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	
Dutch		1.000	0.002	0.000	0.000	0.000	0.049				
Can. Ind.			1.000	1.000	1.000	1.000	0.999				
Ukrainian				1.000	1.000	1.000	0.989				
Canadian							1.000				

Table 73

Scheffé post-hoc analysis of the semantic differential adjective-pair "wise-foolish" for grade 8

A P P E N D I X J

Table 75

Code numbers used for content categories on Figures 24 - 34

Figures 24 - 34
Responses to Questionnaire by Ethnic Concept

TABLE 75
Code Numbers Used for Content Categories

1	-	language
2	-	religion
3	-	occupation
4	-	political
5	-	habits of living
6	-	historical
7	-	current social problems
8	-	standard of living
9	-	food
10	-	clothing
11	-	physical description
12	-	personality trait
13	-	intellectual trait
14	-	other personal characteristics
15	-	evaluative
16	-	slang
17	-	geographical
18	-	people
19	-	nationality
20	-	ancestry
21	-	race
22	-	no agreement
23	-	don't know
24	-	unscorable

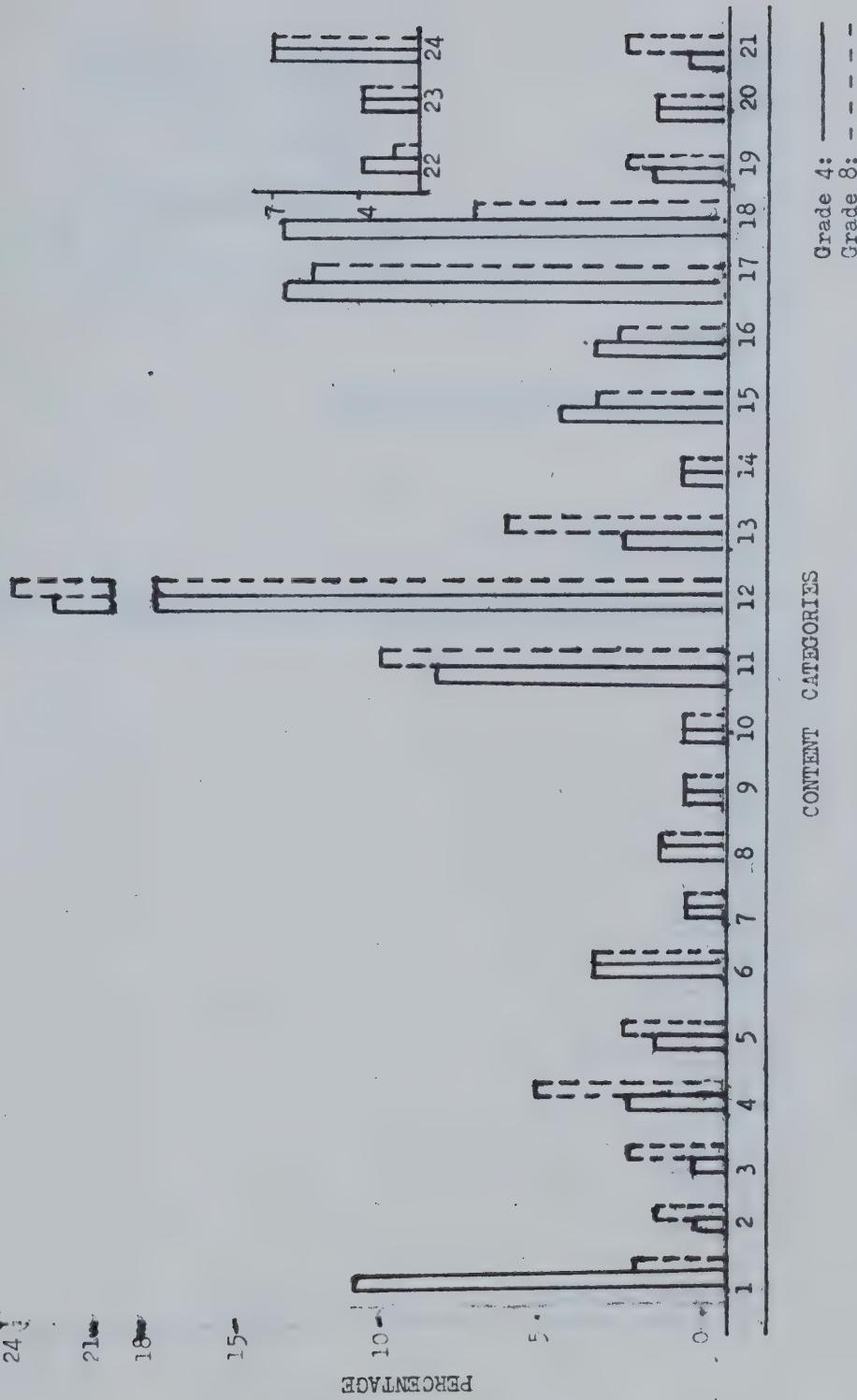


Figure 24. Percentage of Responses Given to Each Content Category for the Ethnic Concept "German"

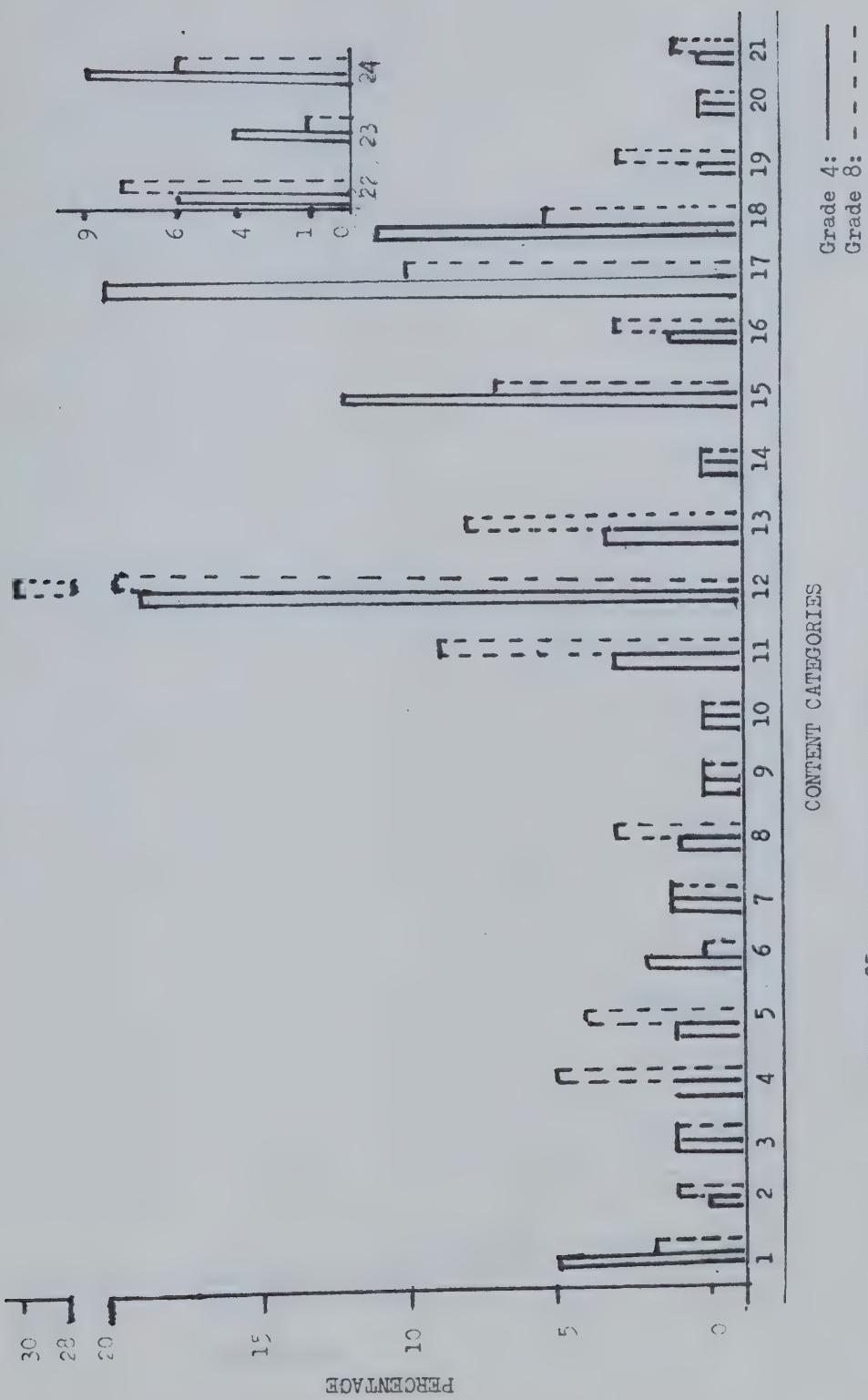


Figure 25. Percentage of Responses Given to Each Content Category for the Ethnic Concept "American"

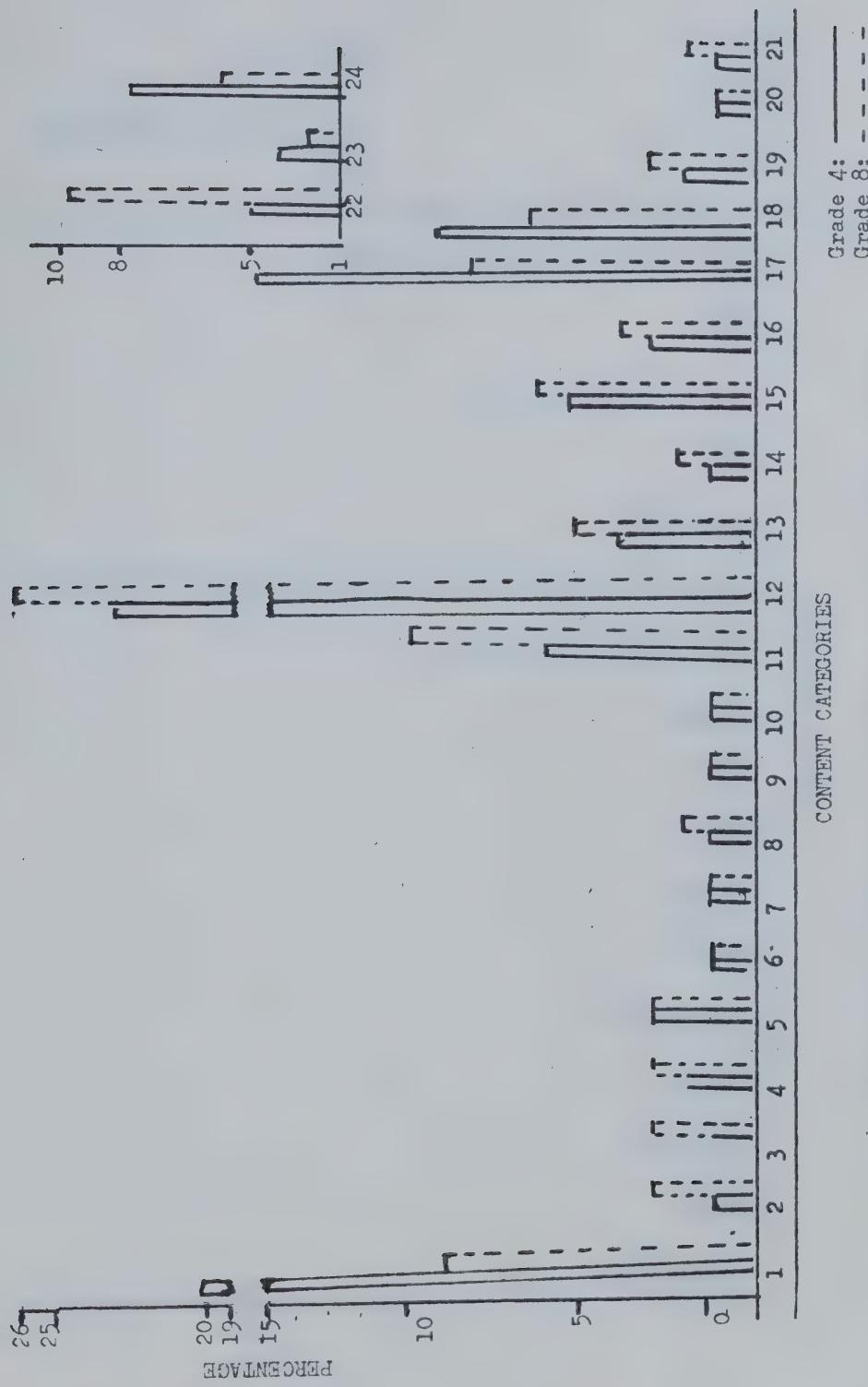


Figure 26. Percentage of Responses Given to Each Content Category for the Ethnic Concept "French"

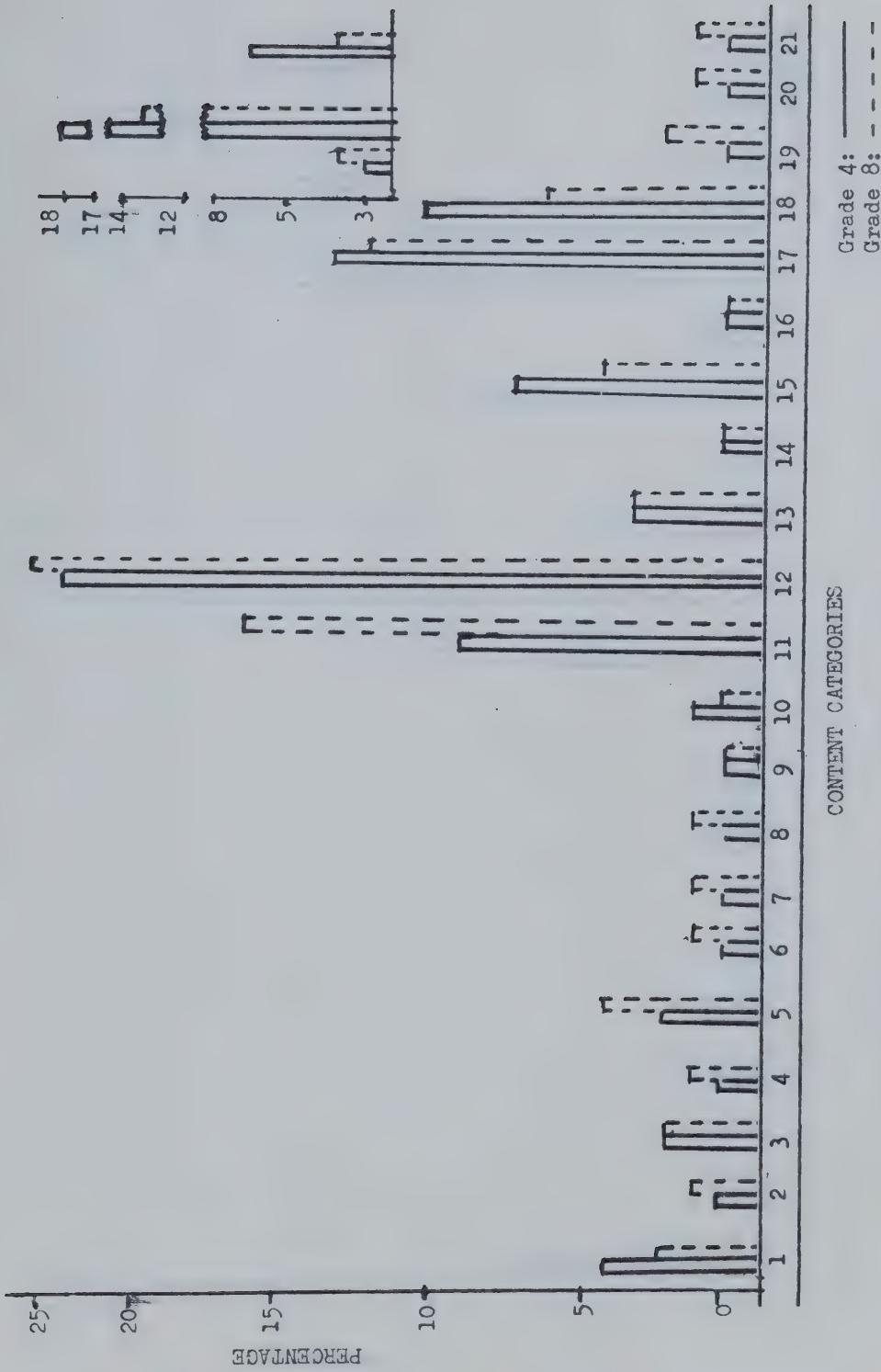


Figure 27. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Norwegian"

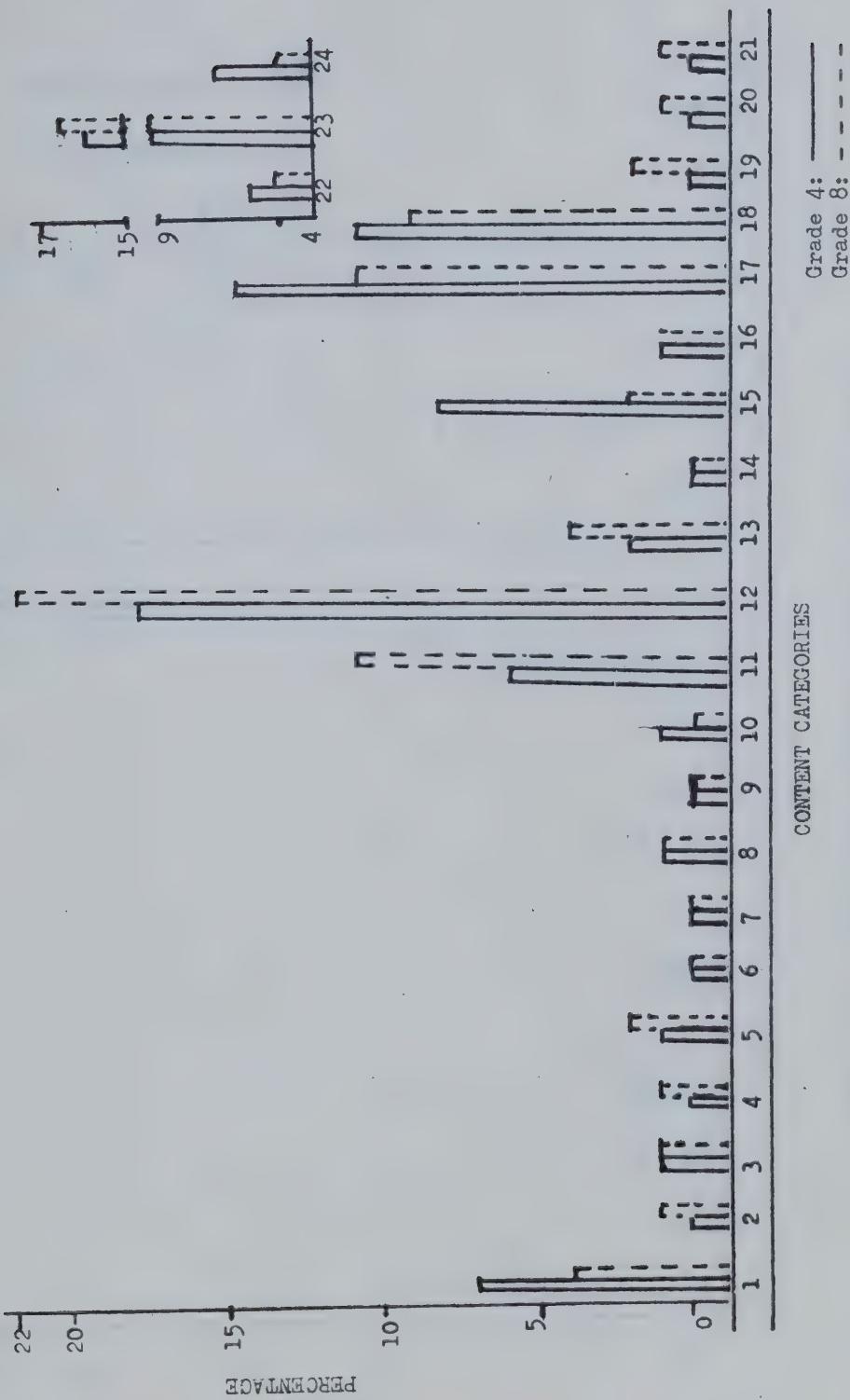


Figure 28. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Polish"

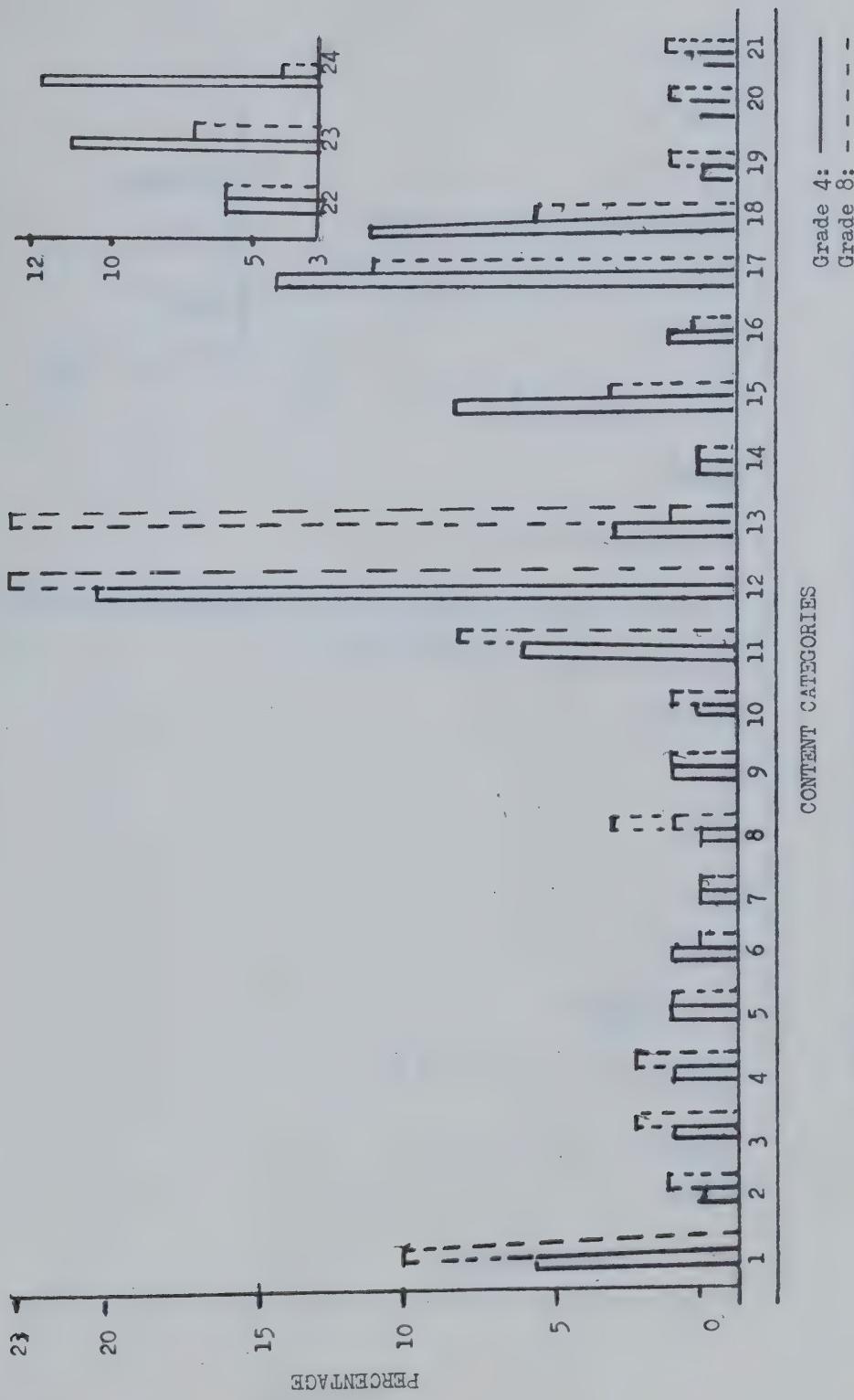


Figure 29. Percentage of Responses Given to Each Content Category for the Ethnic Concept "British"

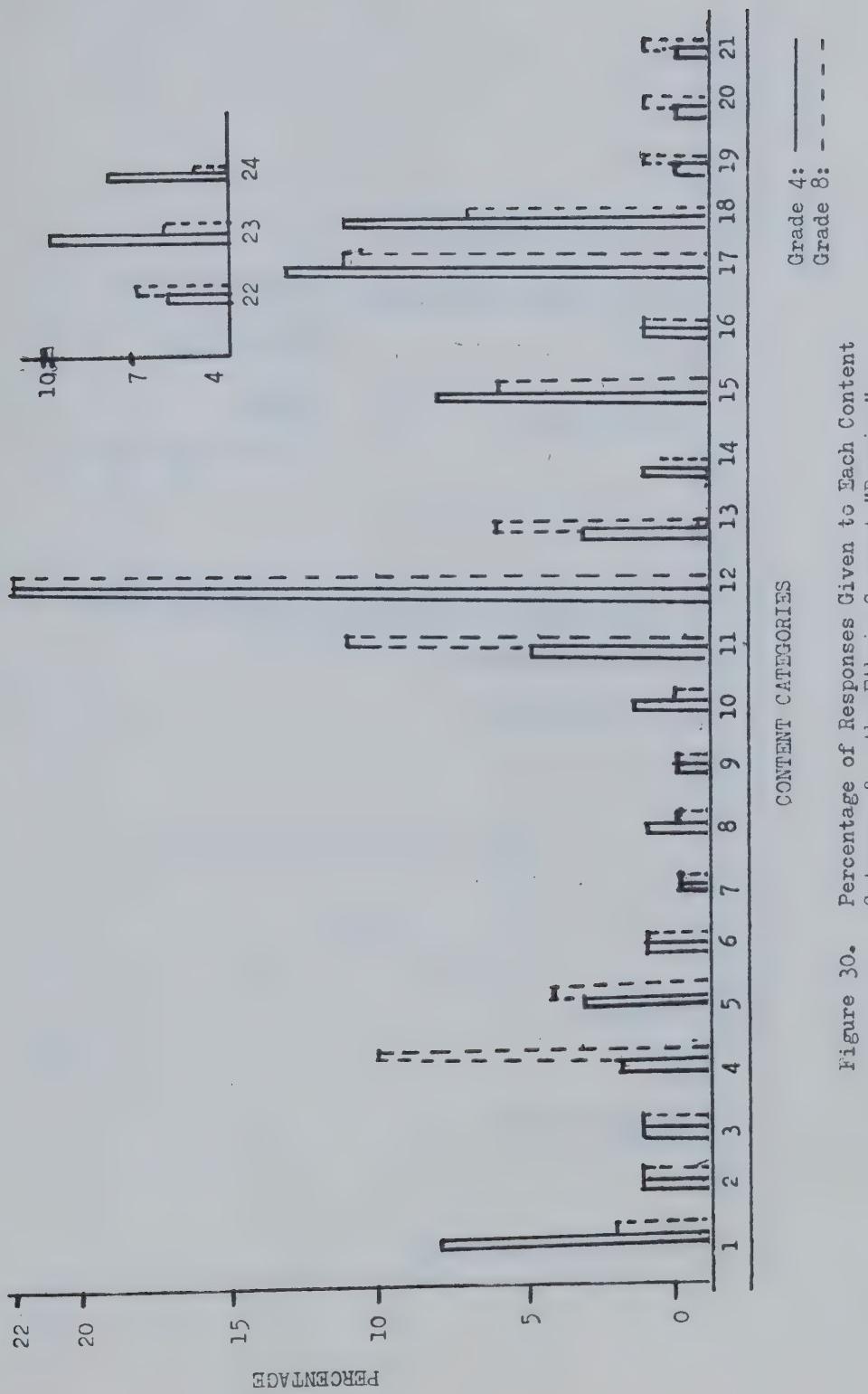


Figure 30. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Russian"

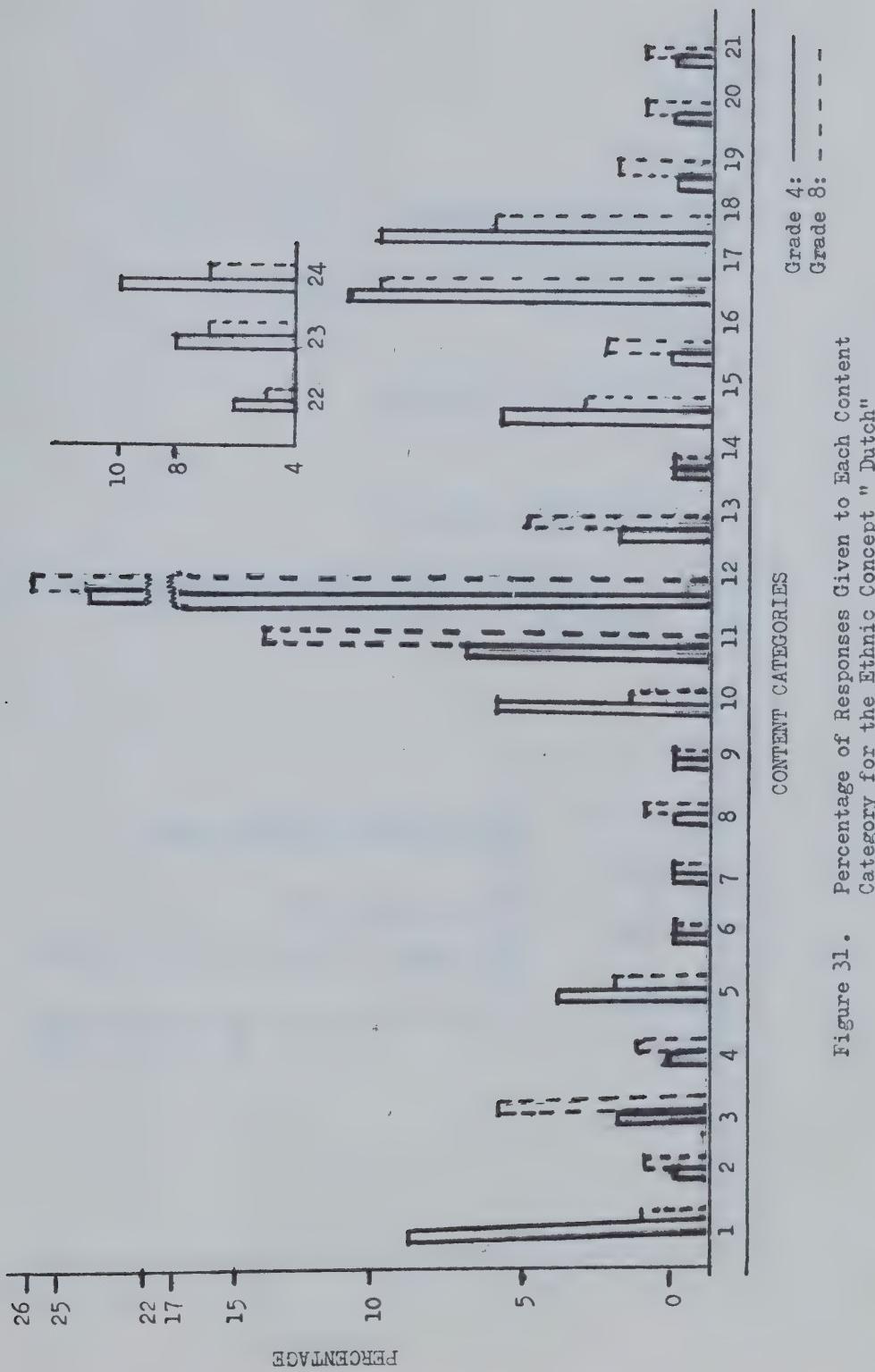


Figure 31. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Dutch"

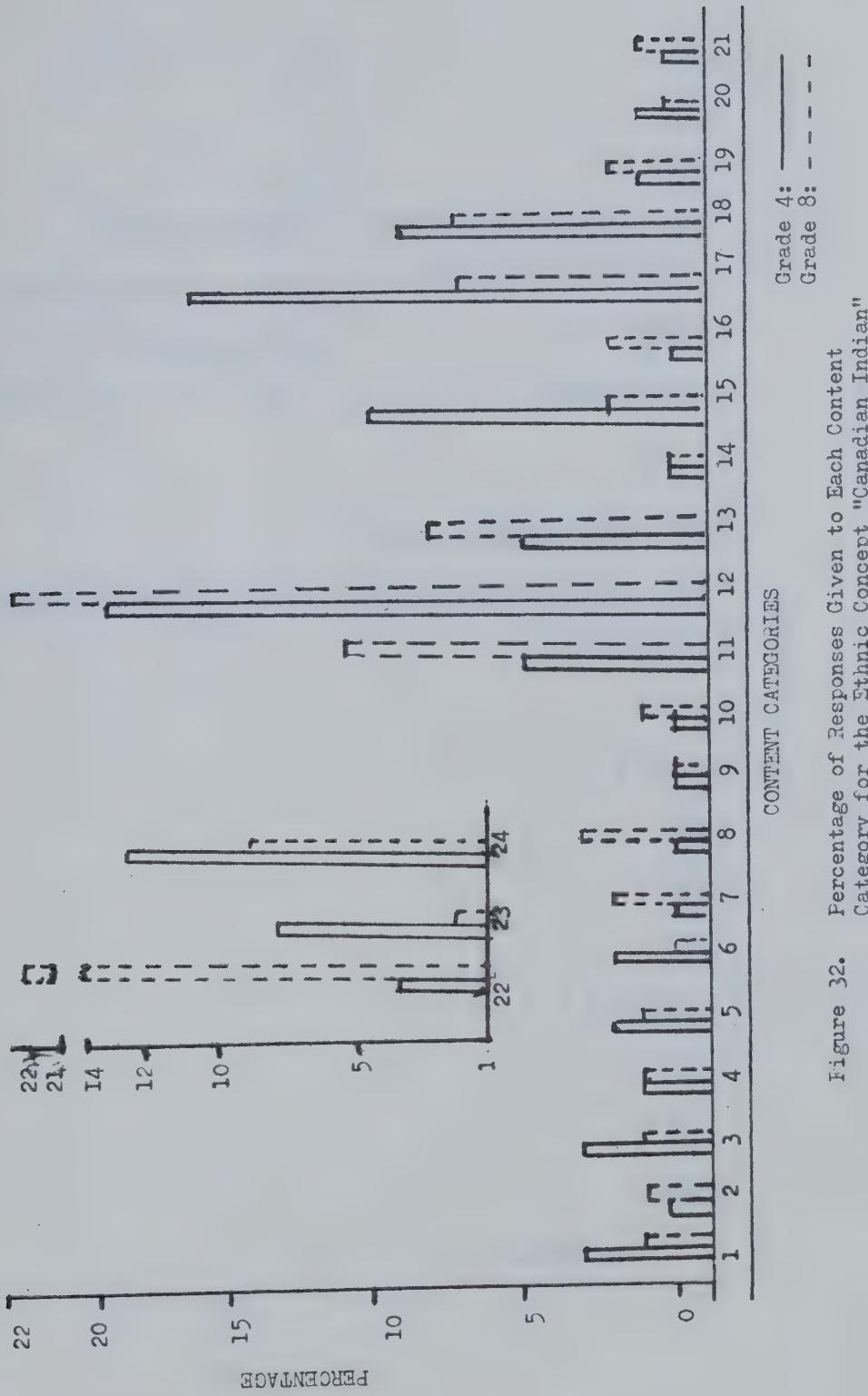


Figure 32. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Canadian Indian"

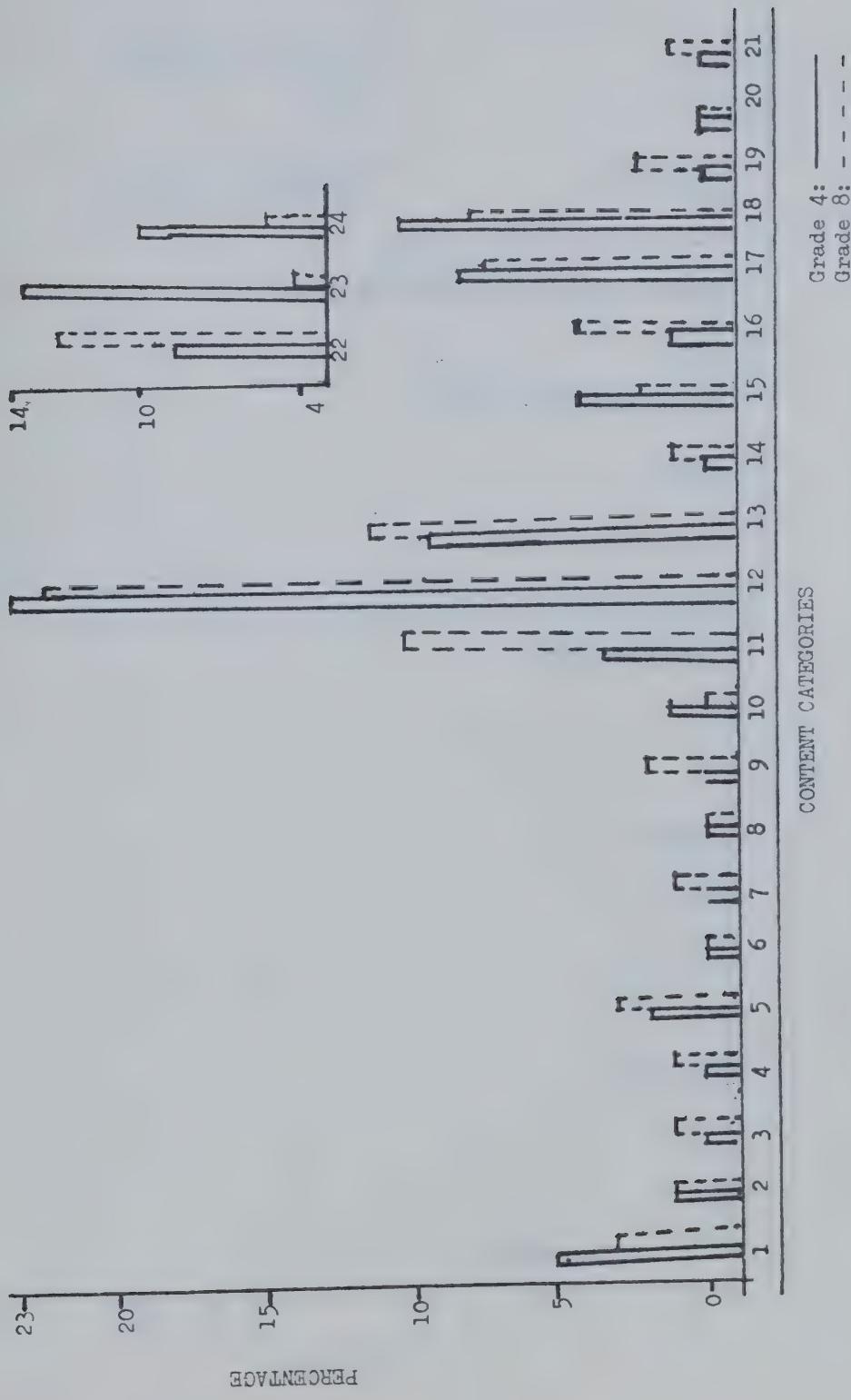


Figure 33. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Ukrainian"

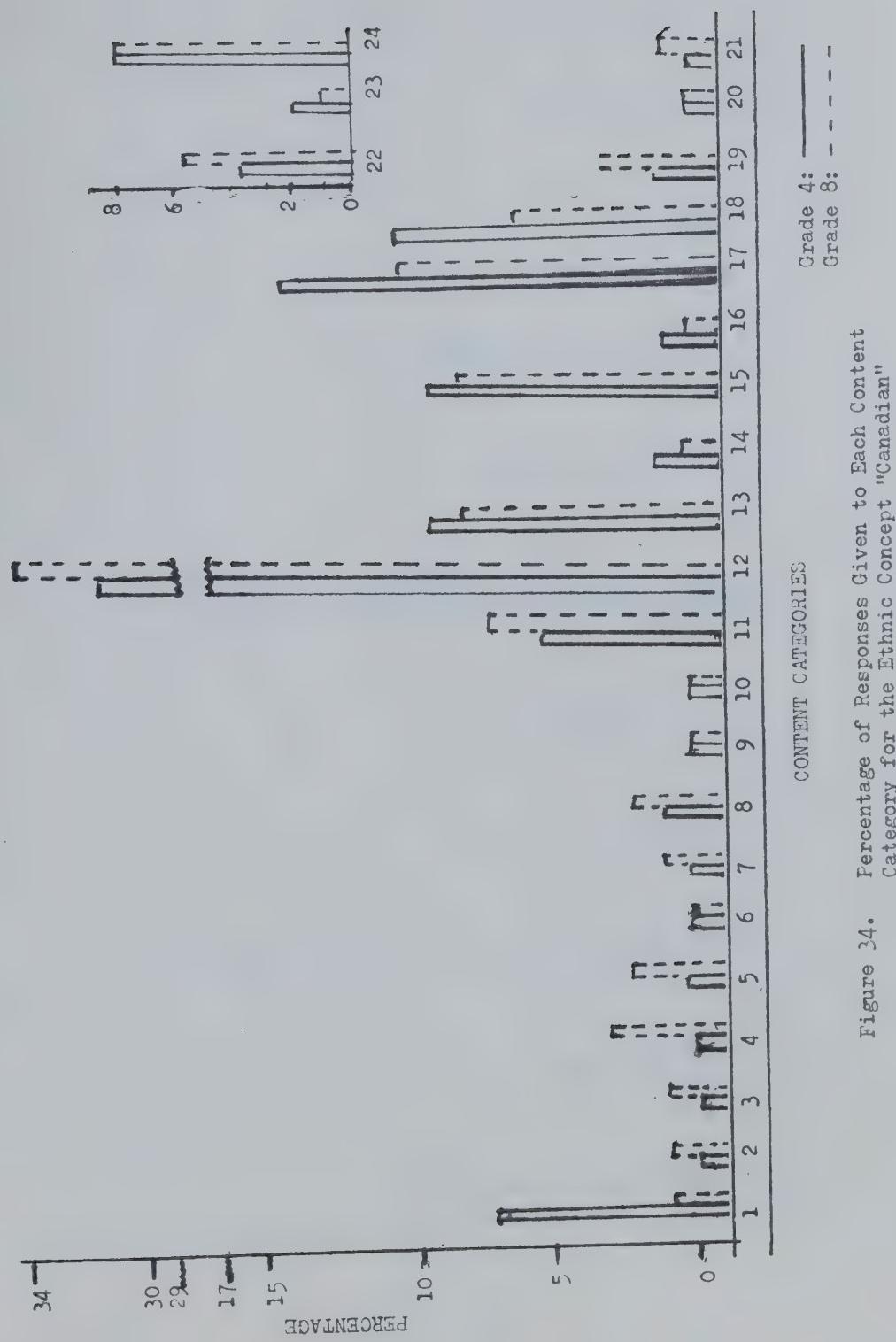


Figure 34. Percentage of Responses Given to Each Content Category for the Ethnic Concept "Canadian"

A P P E N D I X K

Figures 35 - 58
Responses to questionnaire by content category

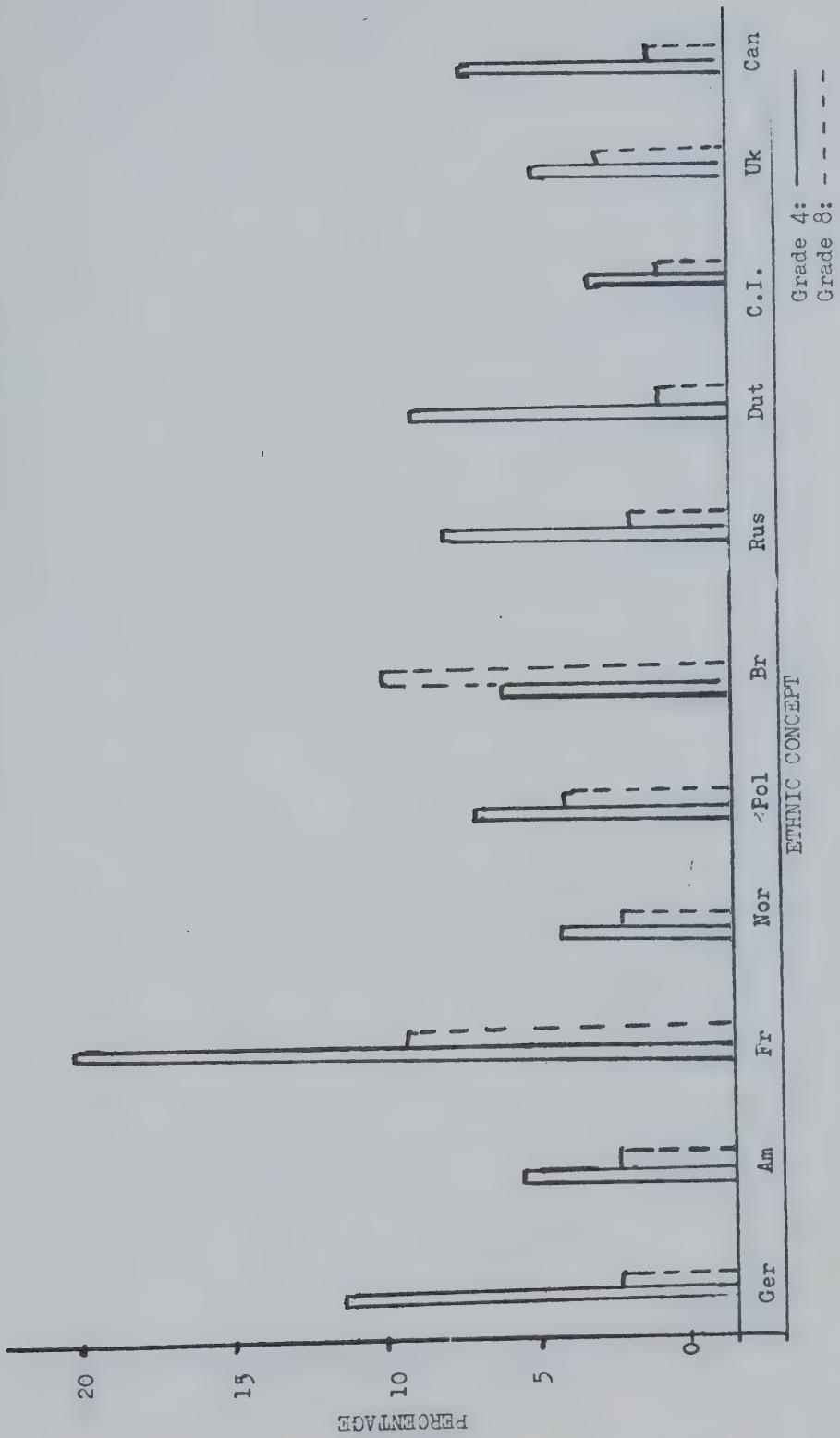


Figure 35. Percentage of Responses Given to Each Ethnic Concept for the Content Category "language"

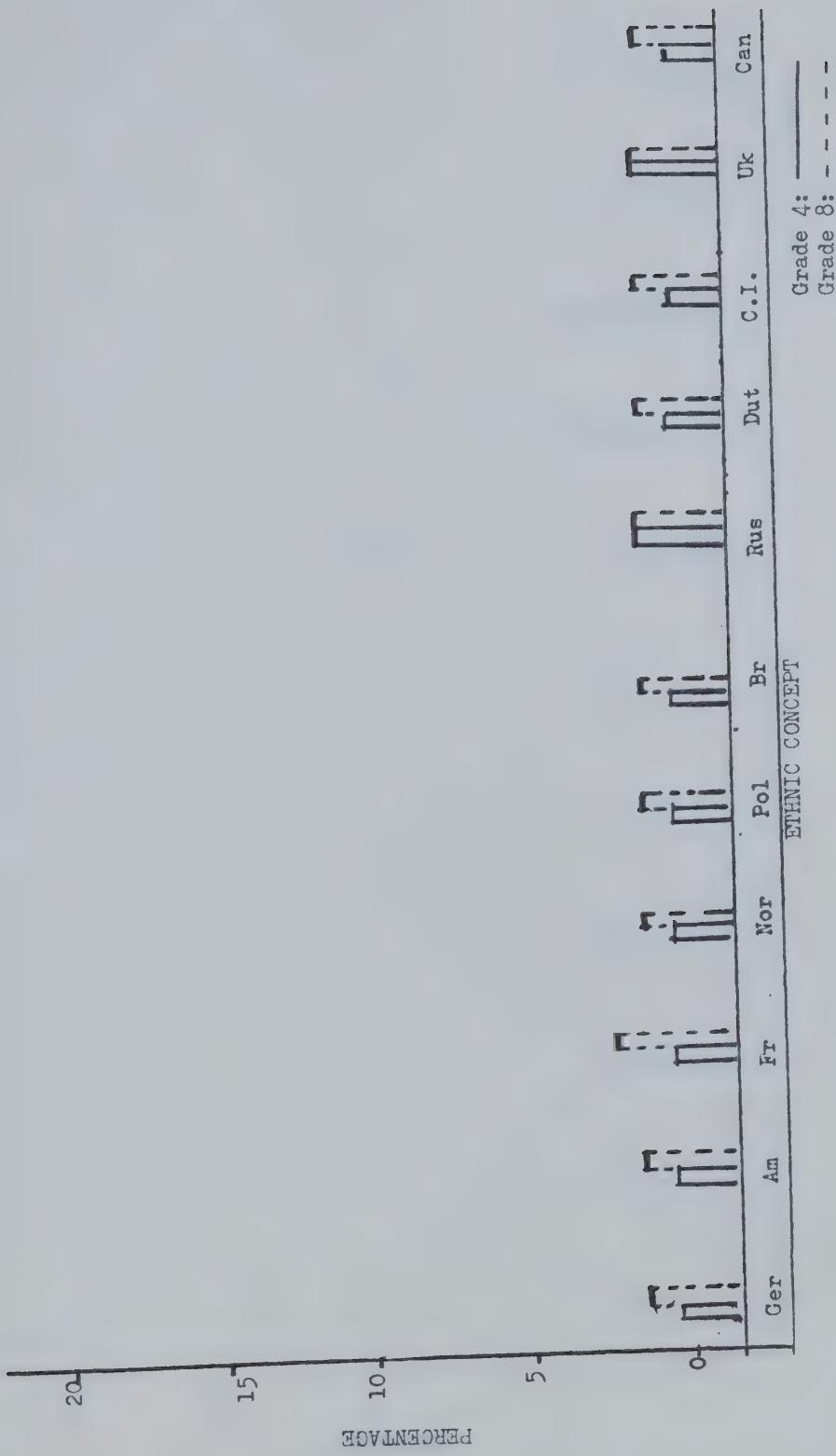


Figure 36. Percentage of Responses Given to Each Ethnic Concept for the Content Category "religion"

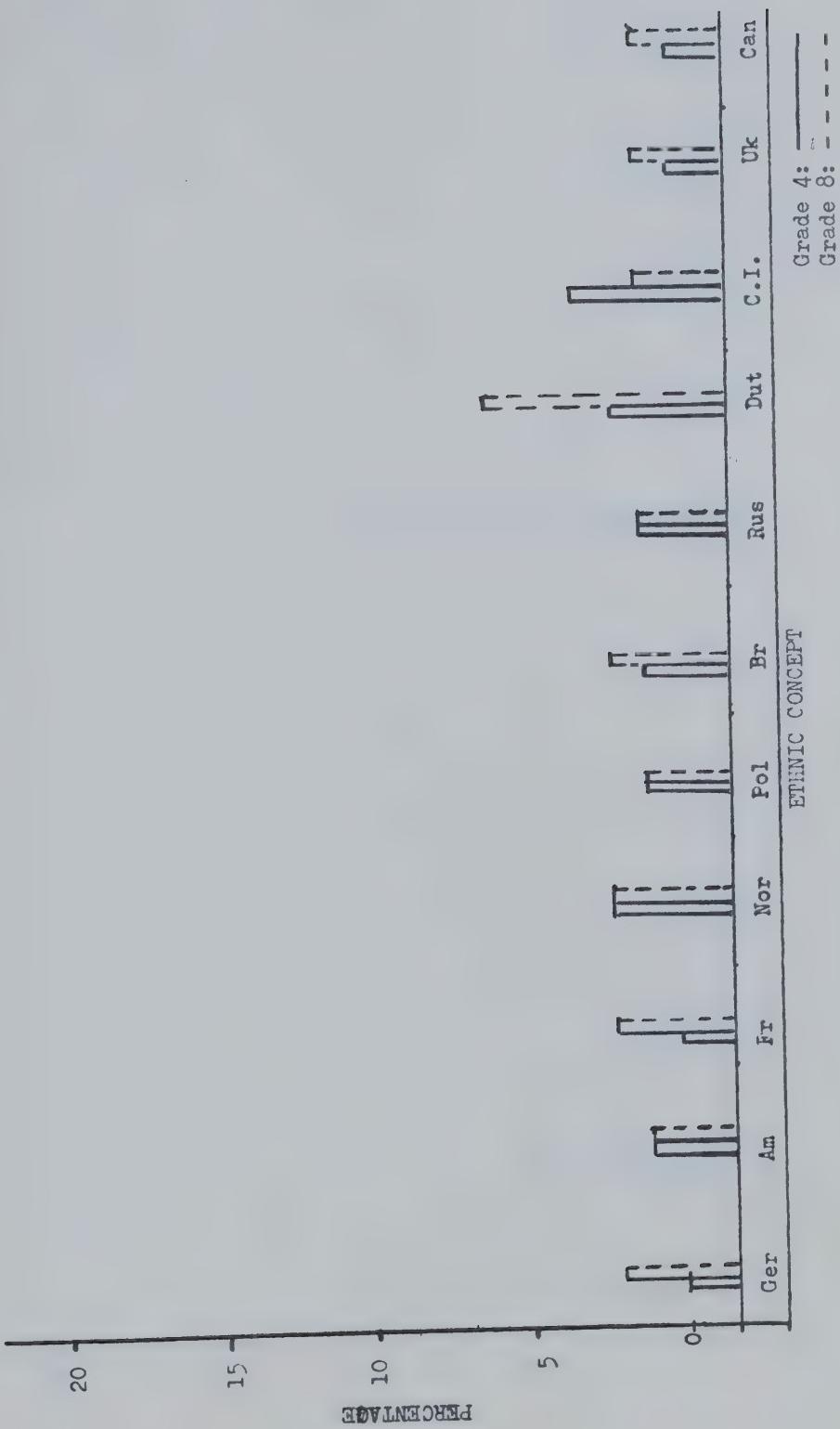


Figure 37. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Occupation"

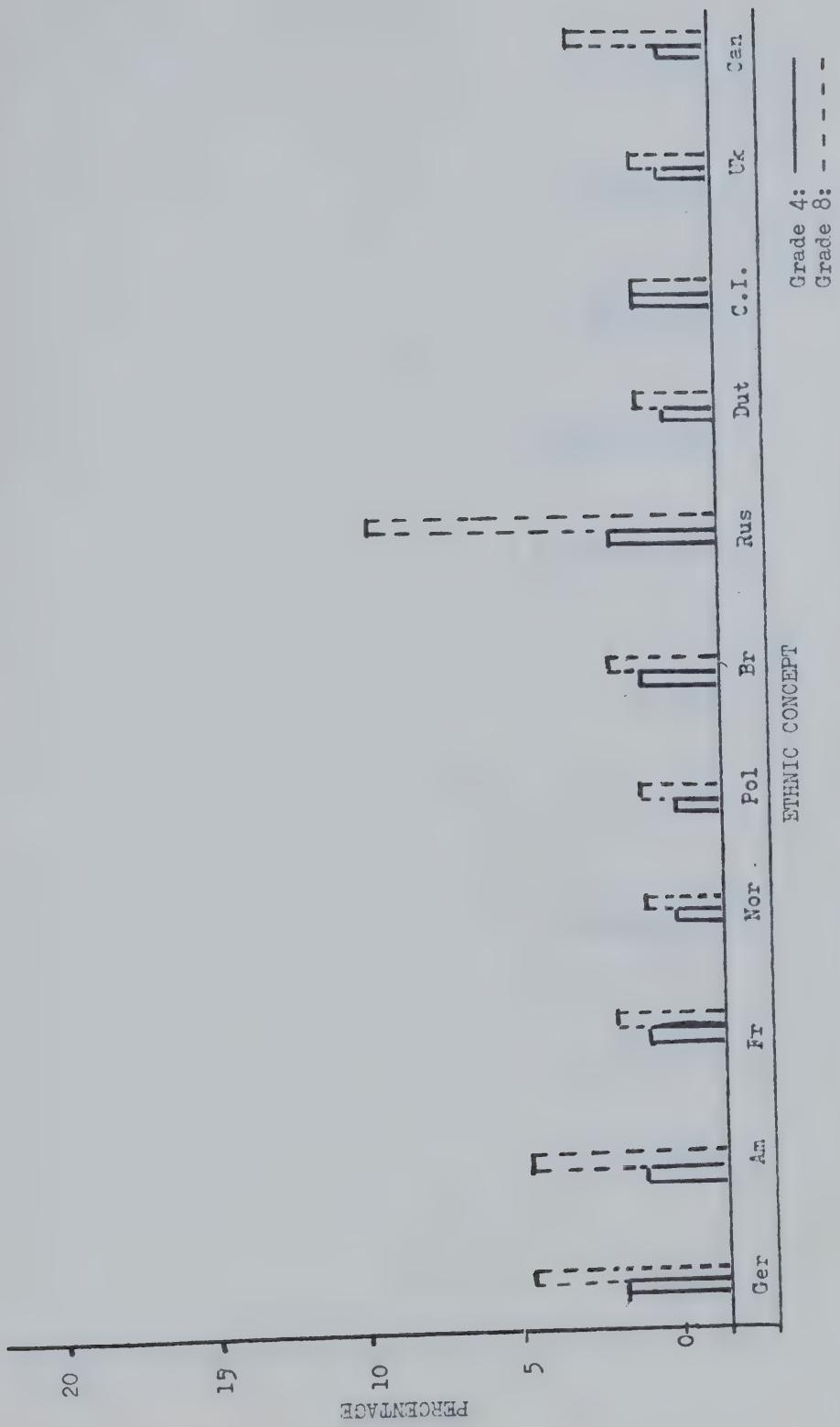


Figure 38. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Political"

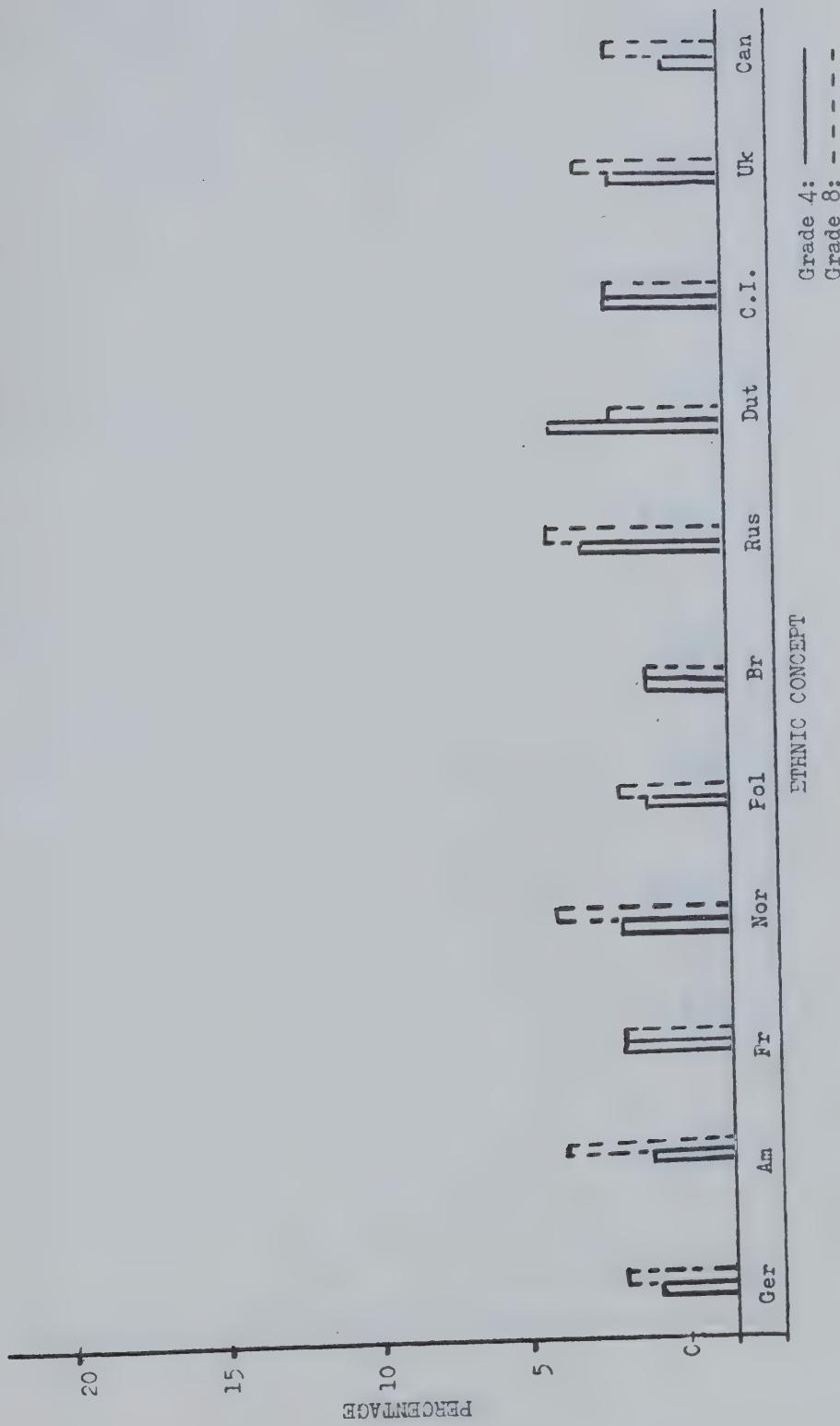


Figure 39. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Habits of Living"

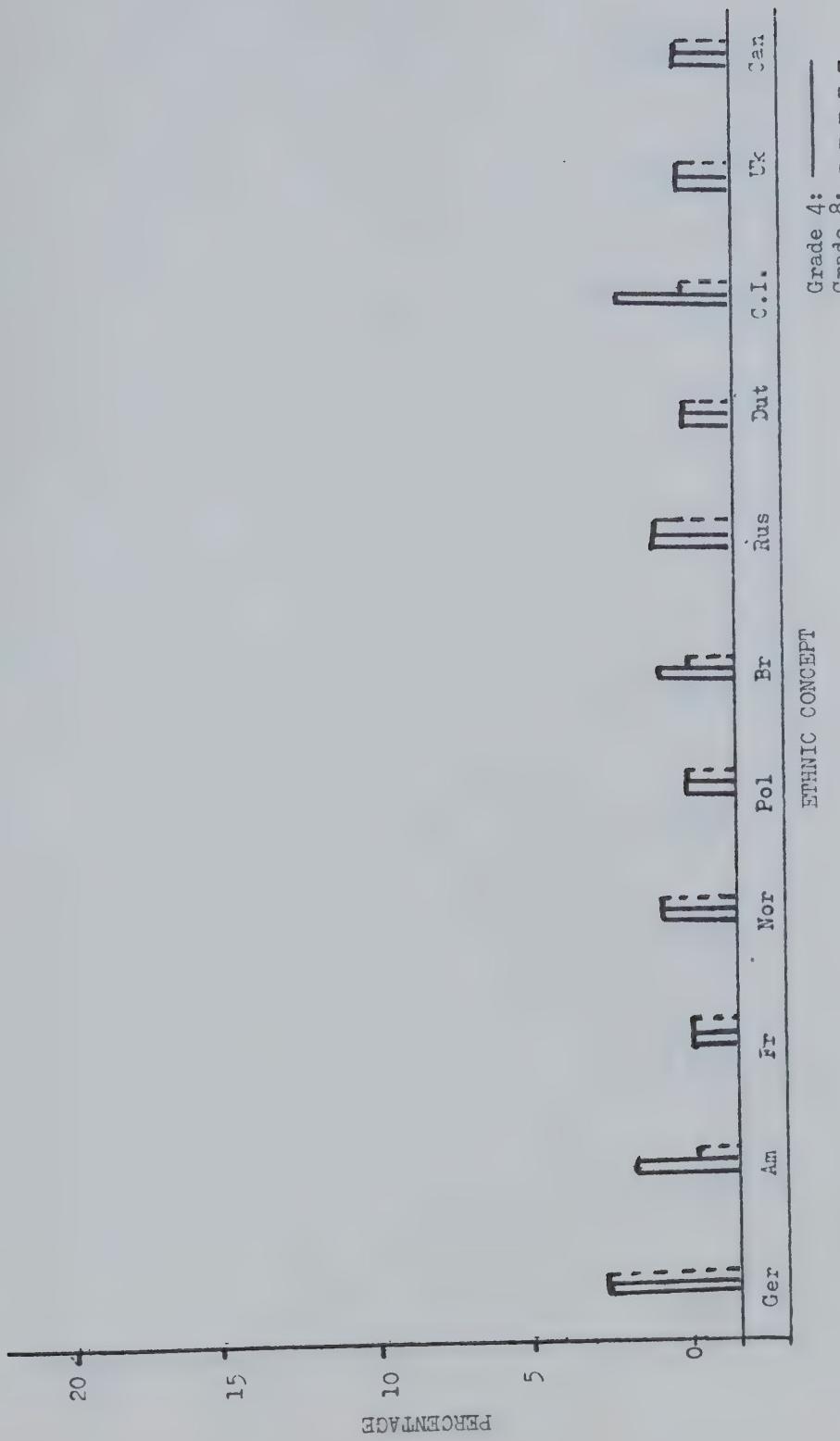


Figure 40. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Historical"

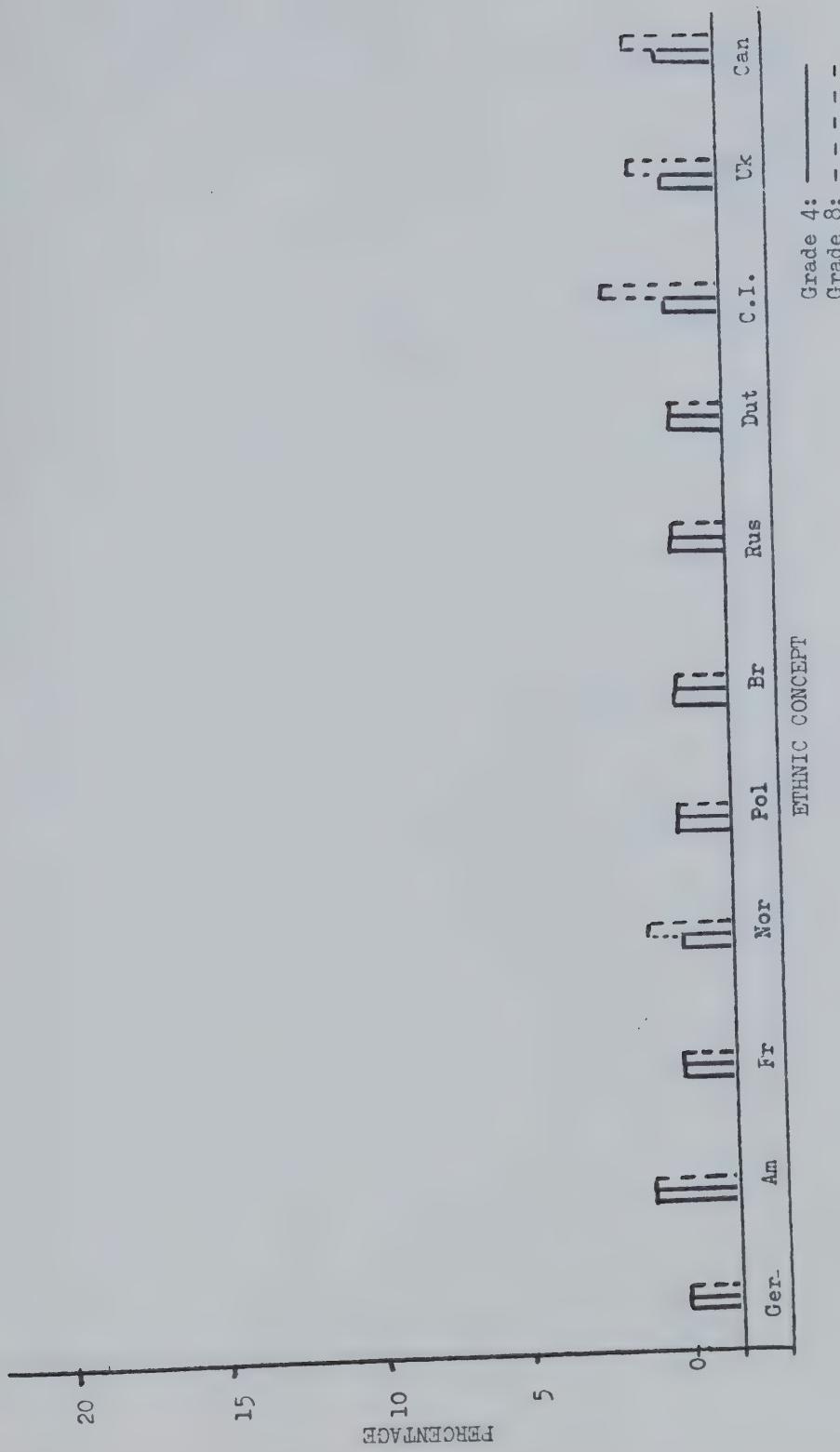


Figure 41. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Social Problems"

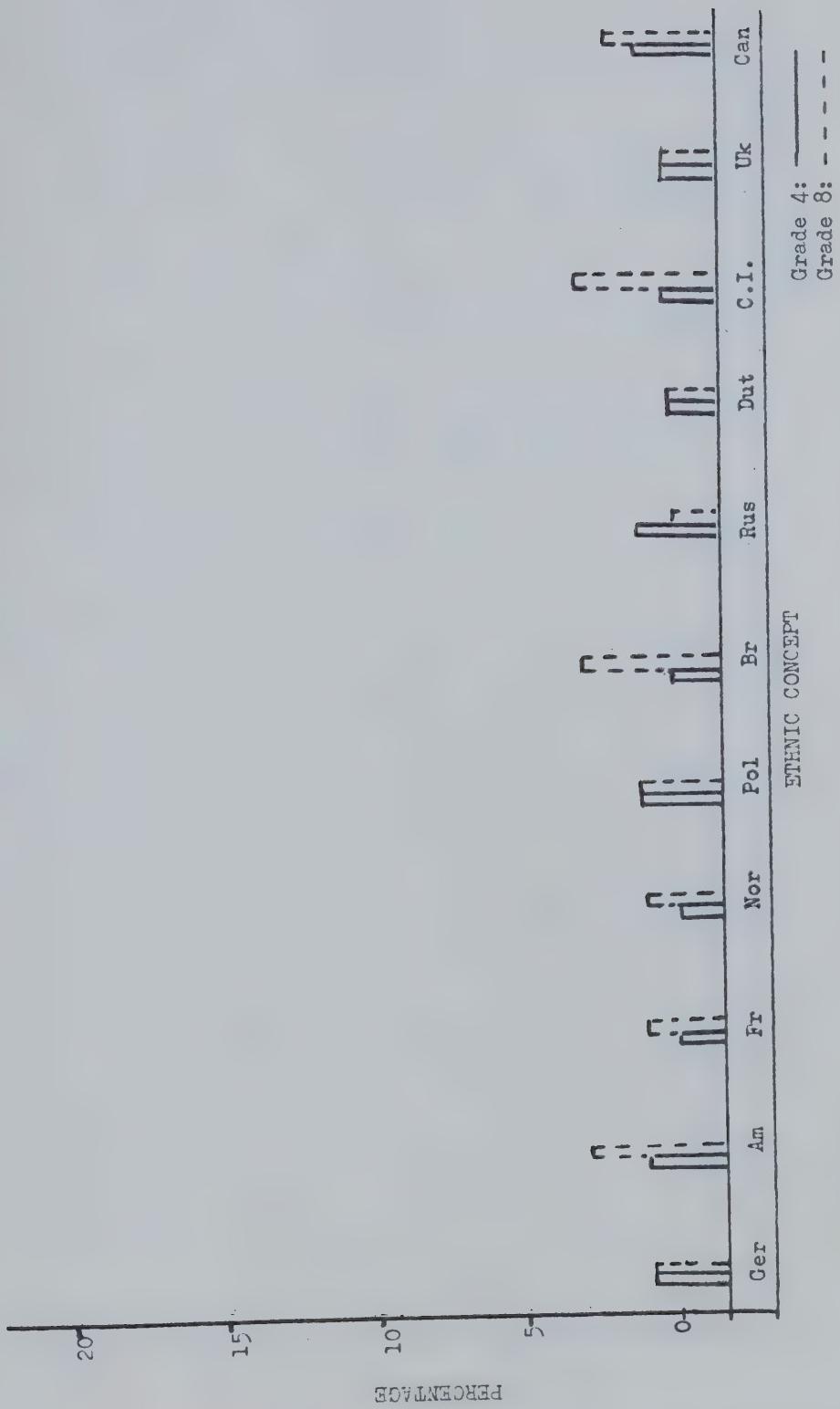


Figure 42. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Standard of Living"

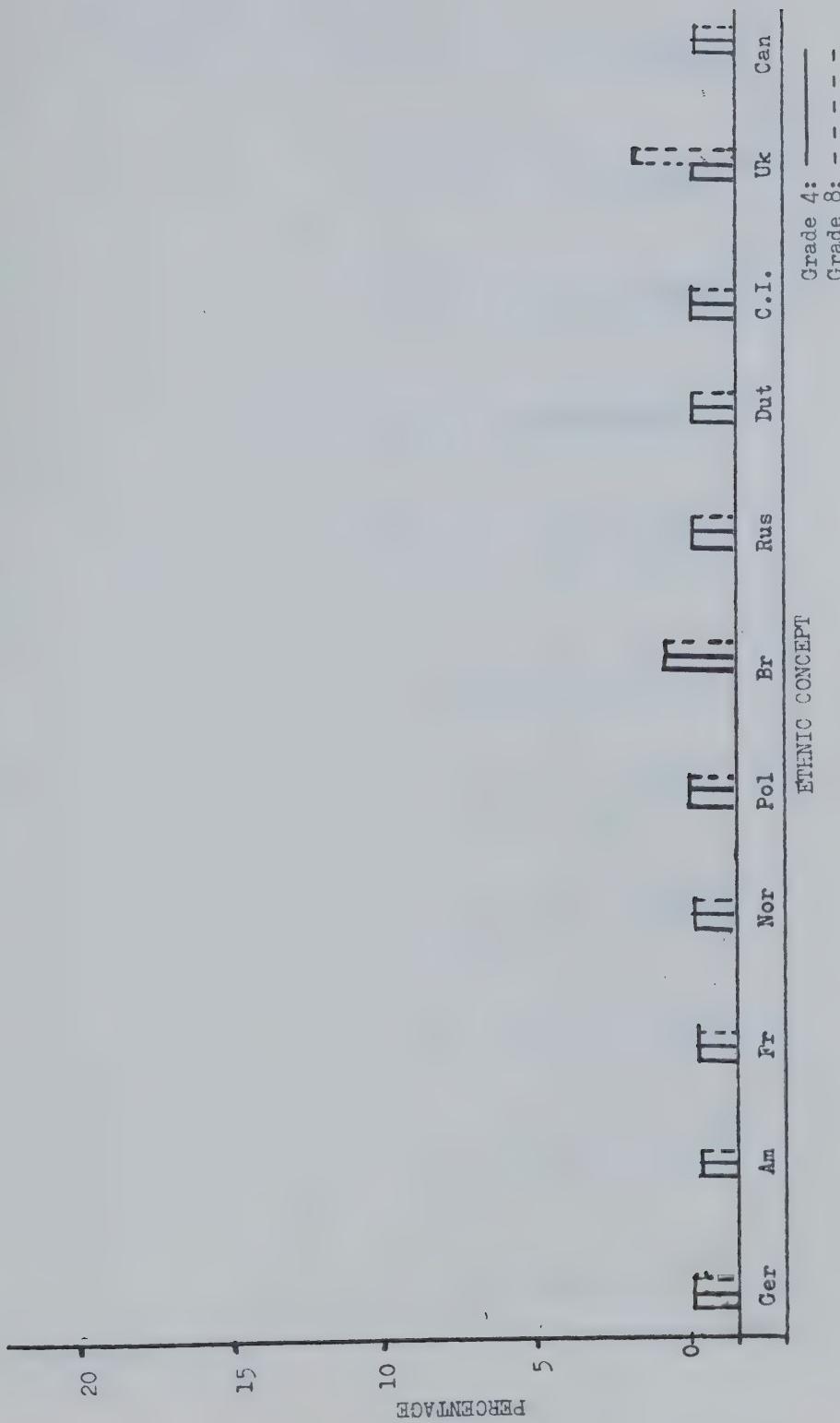


Figure 43. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Food"

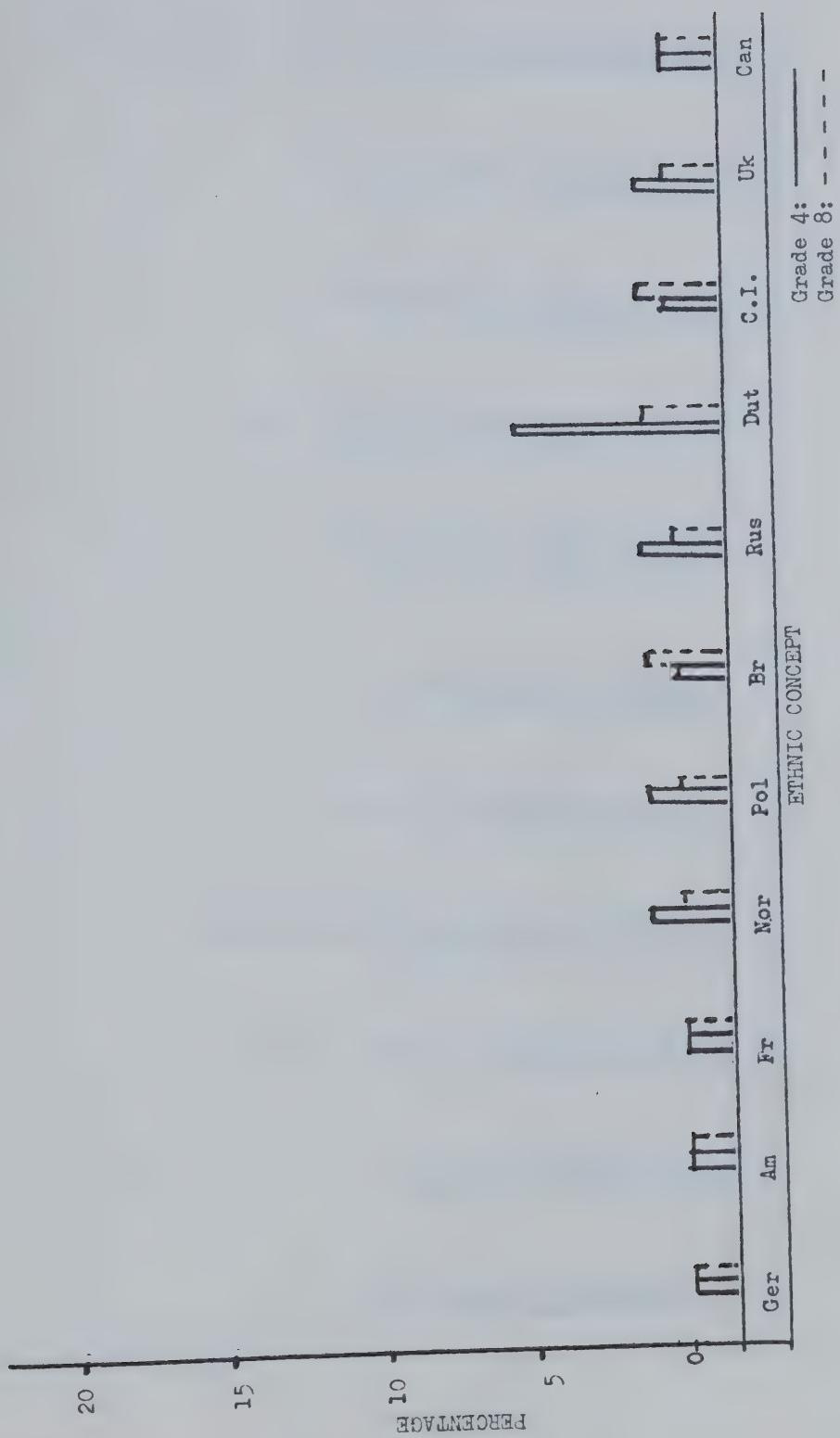


Figure 44. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Clothing"

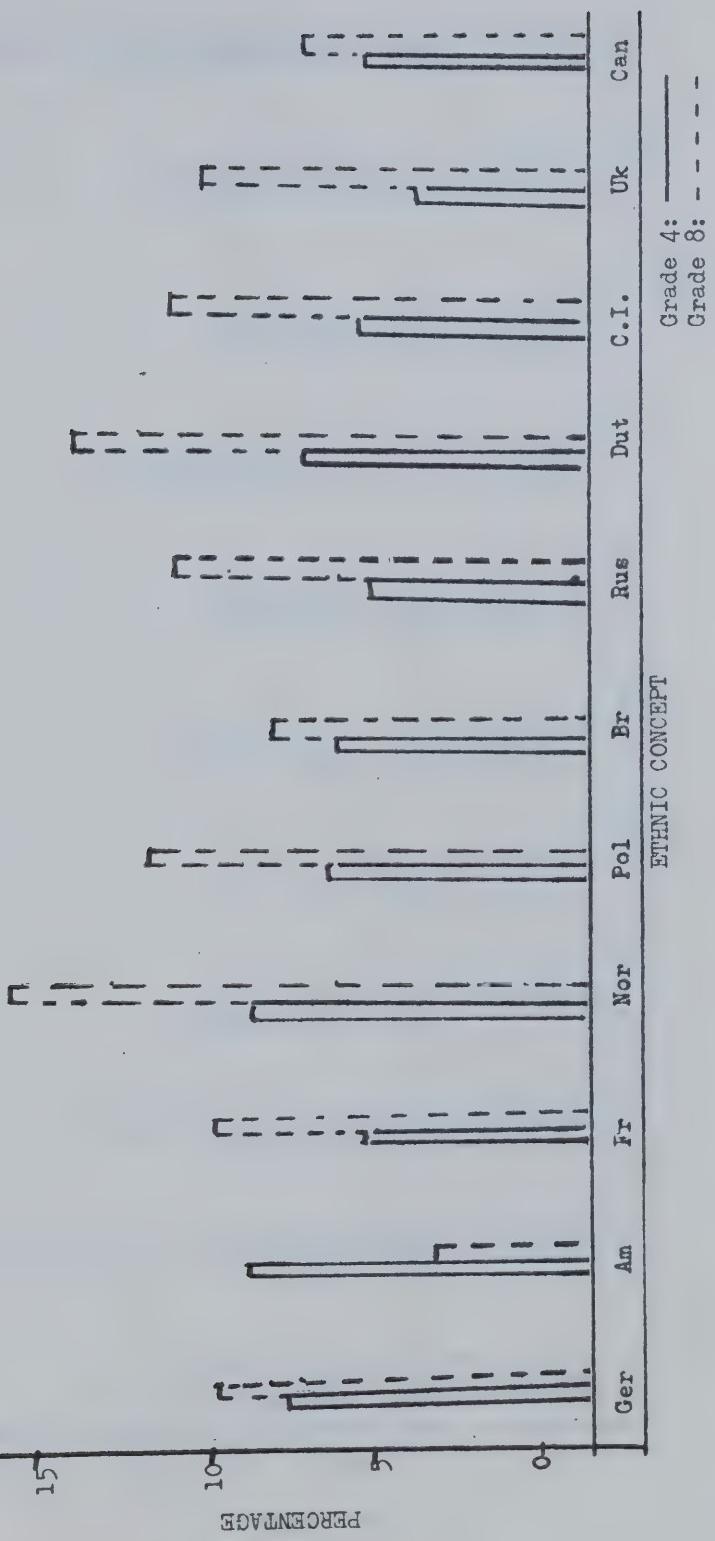


Figure 45. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Physical Description"

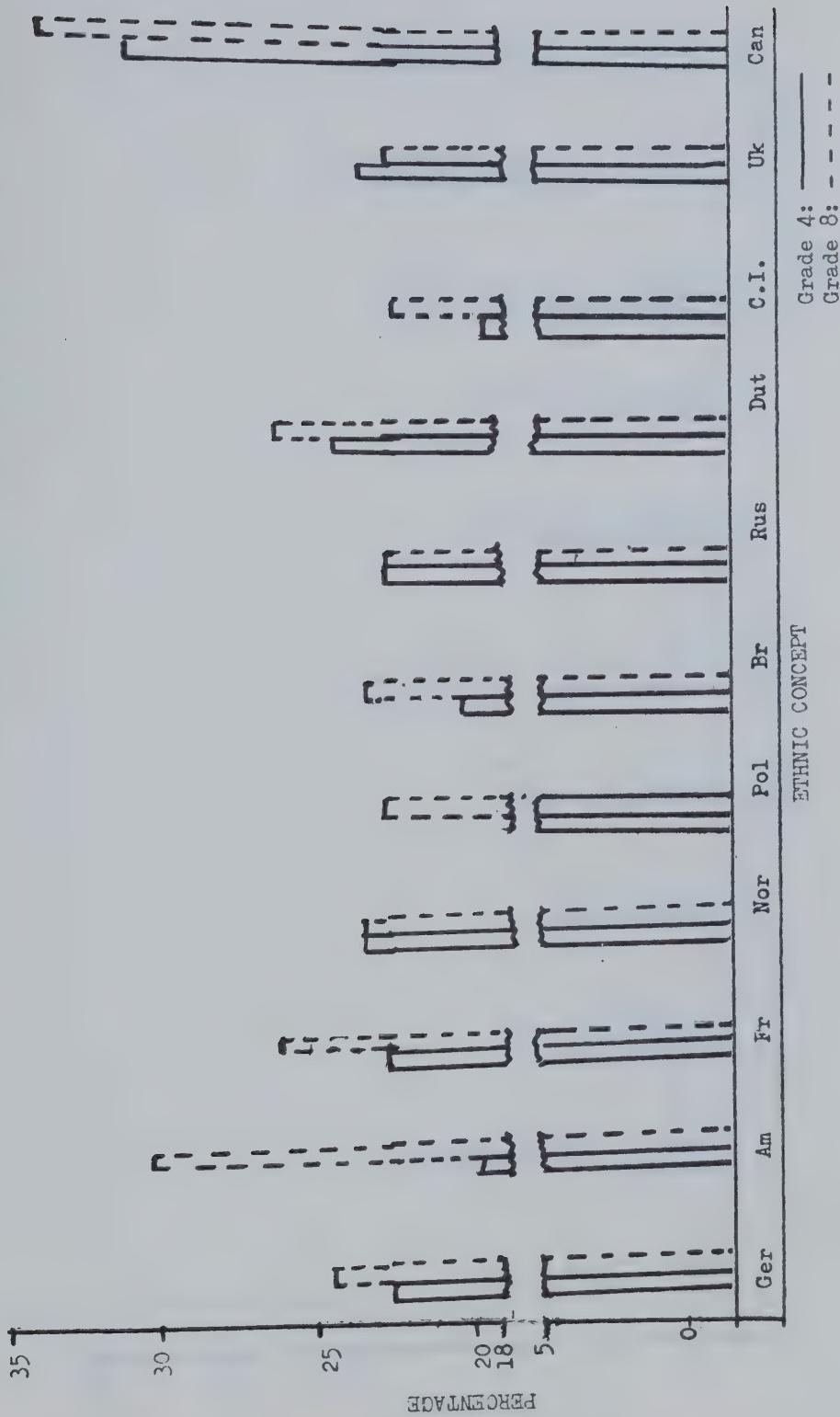


Figure 46. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Personality Trait"

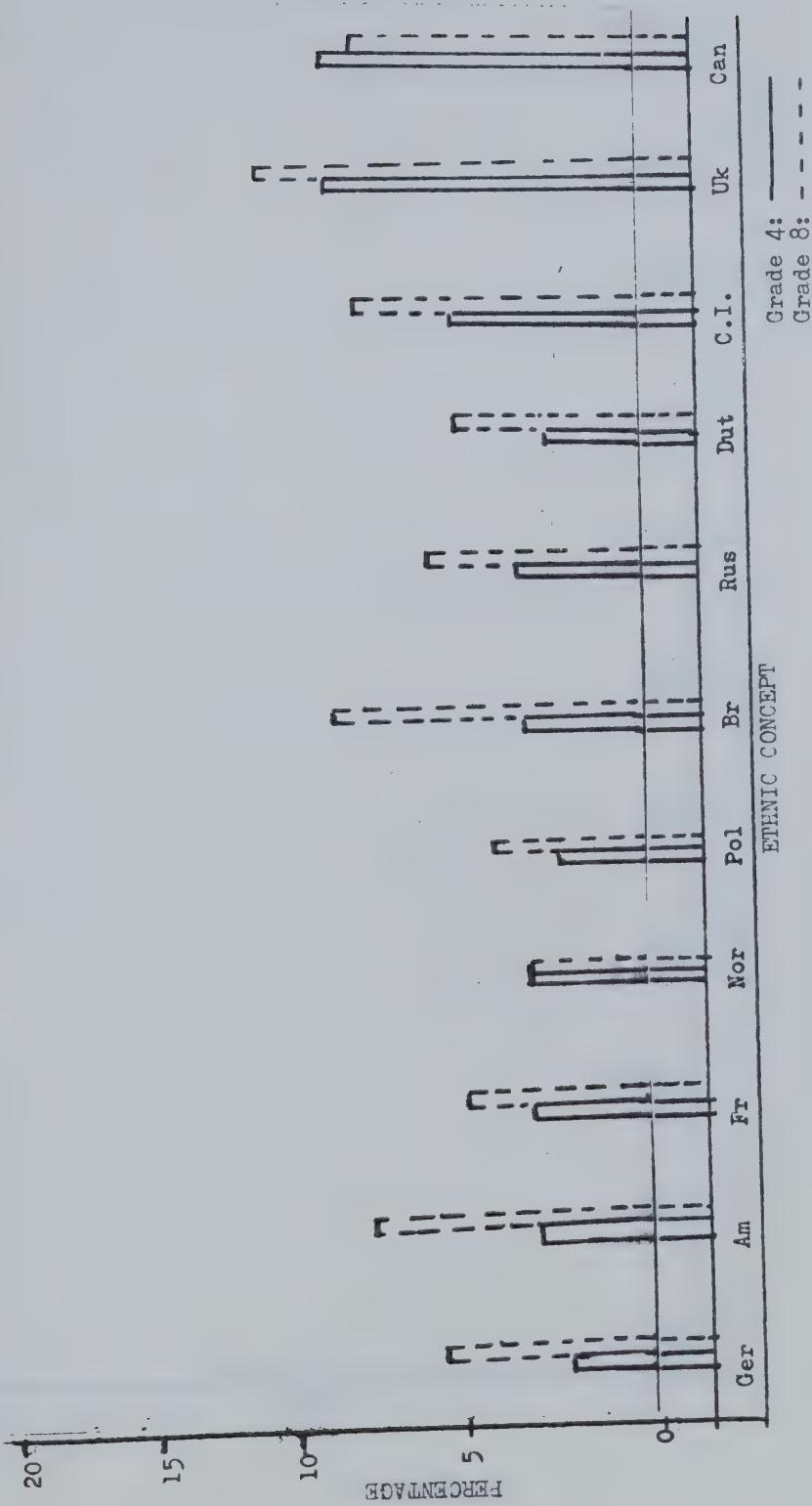
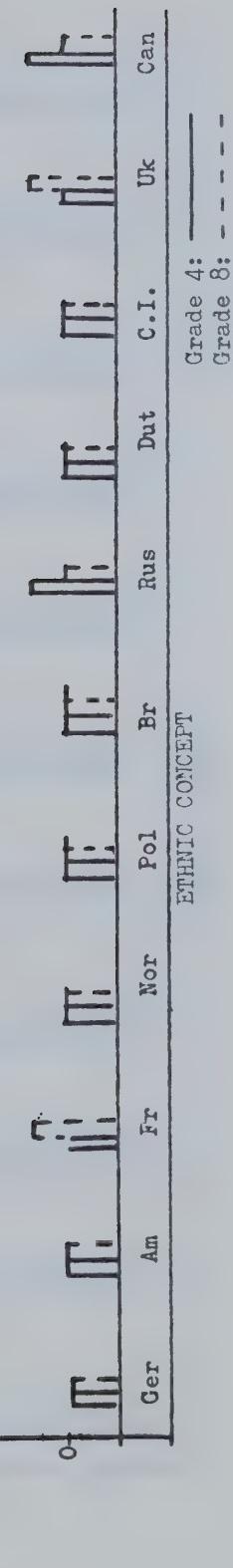


Figure 47. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Intellectual Trait"

Figure 48. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Other Personal"



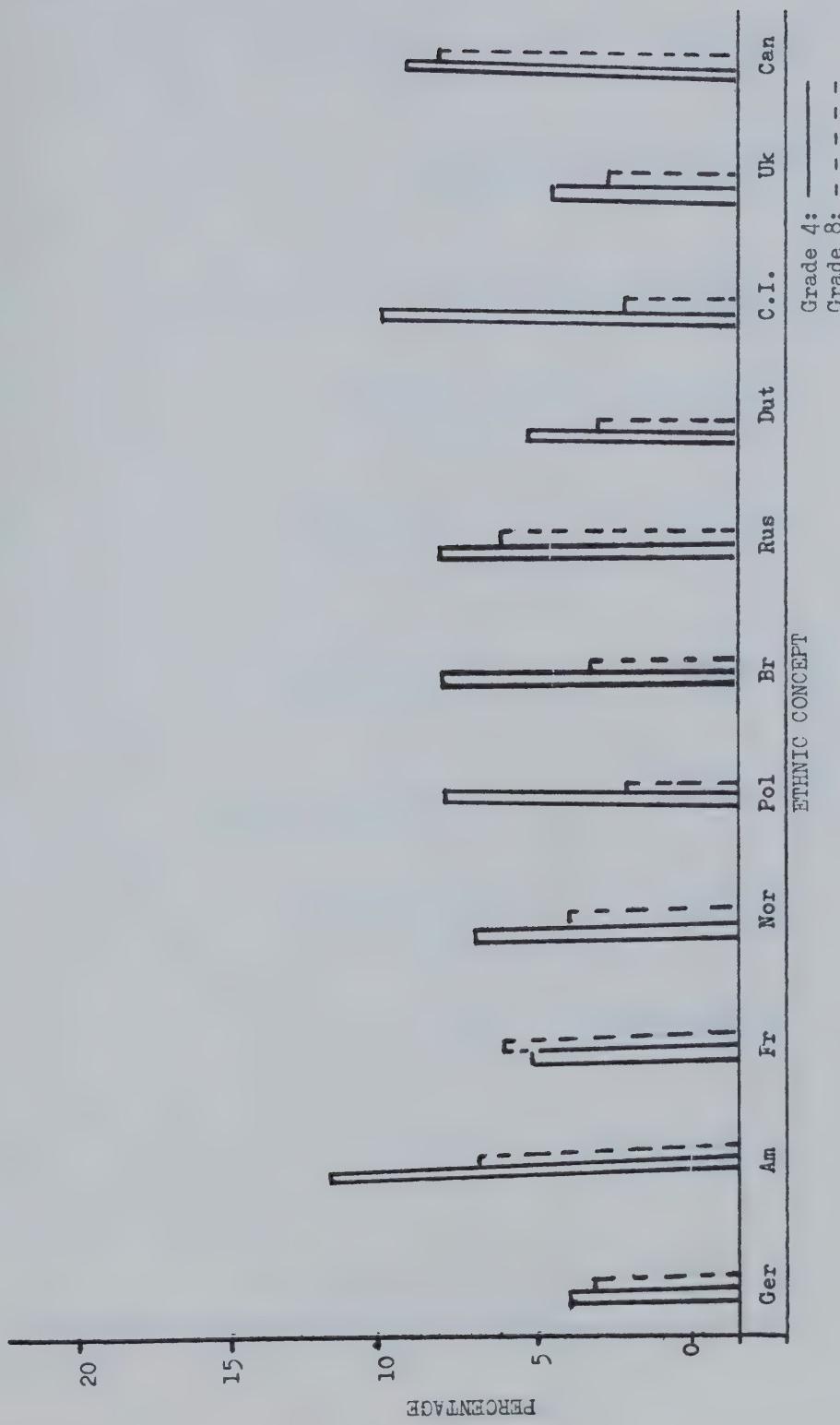


Figure 49. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Evaluative"

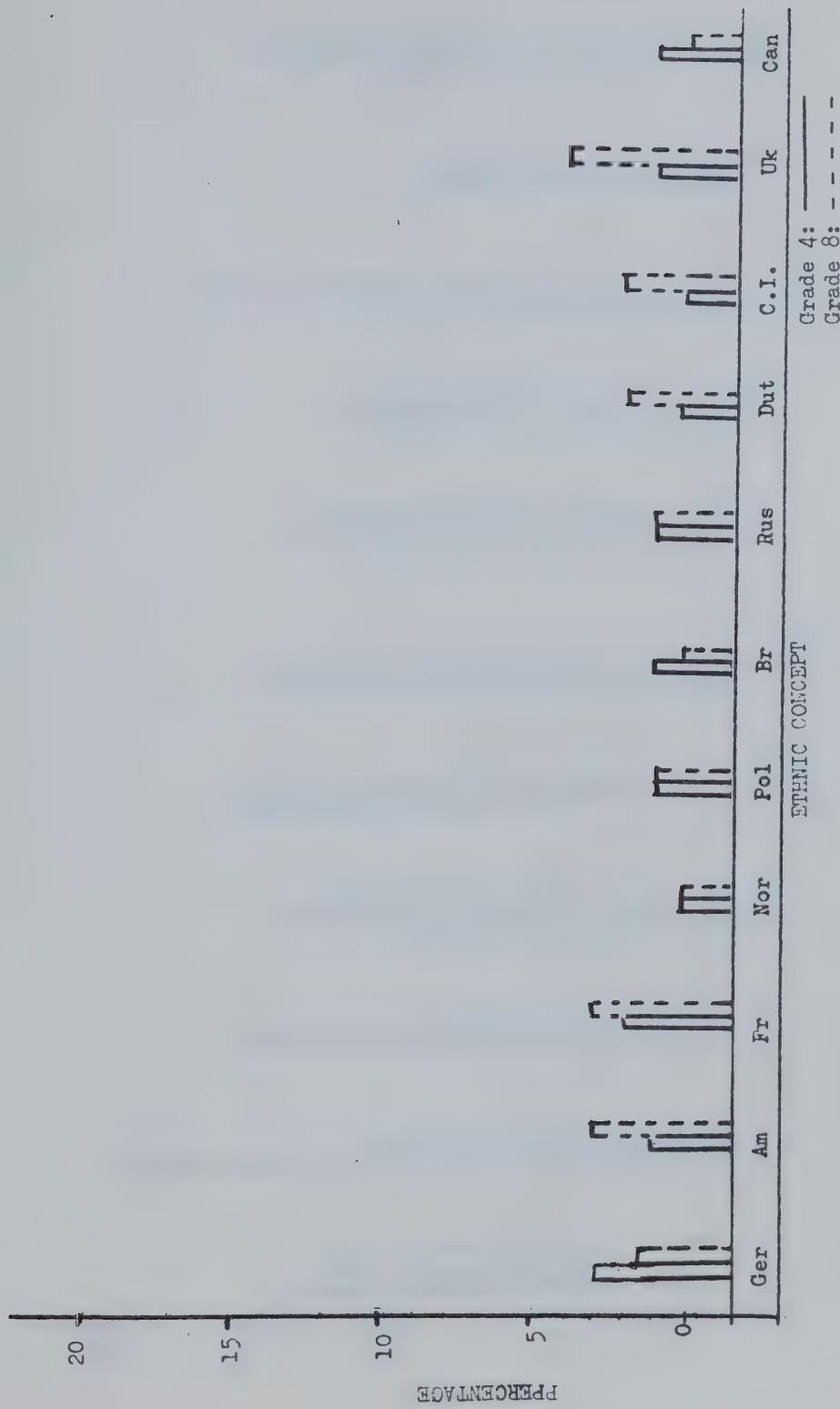


Figure 50. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Slang"

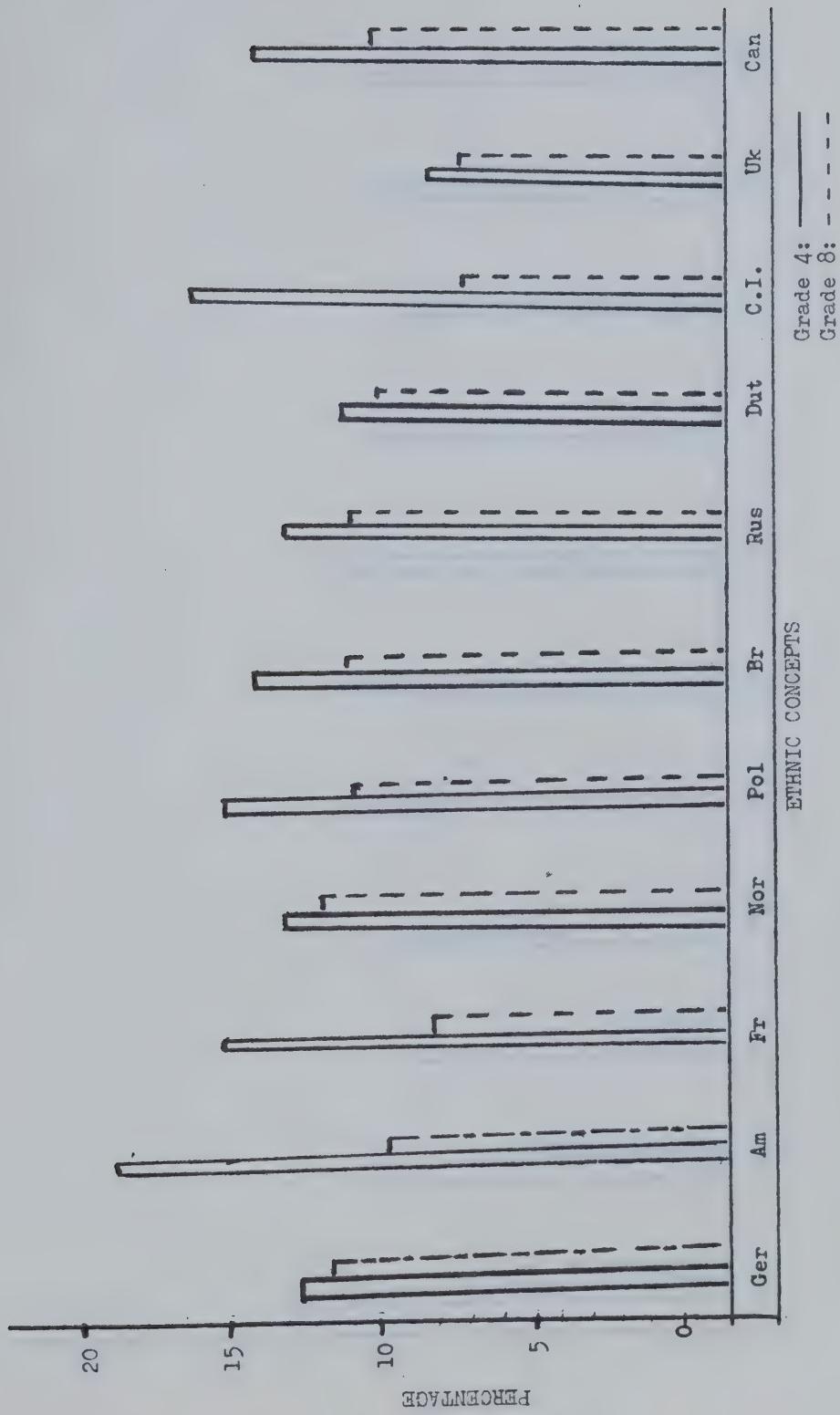


Figure 51. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Geographical"

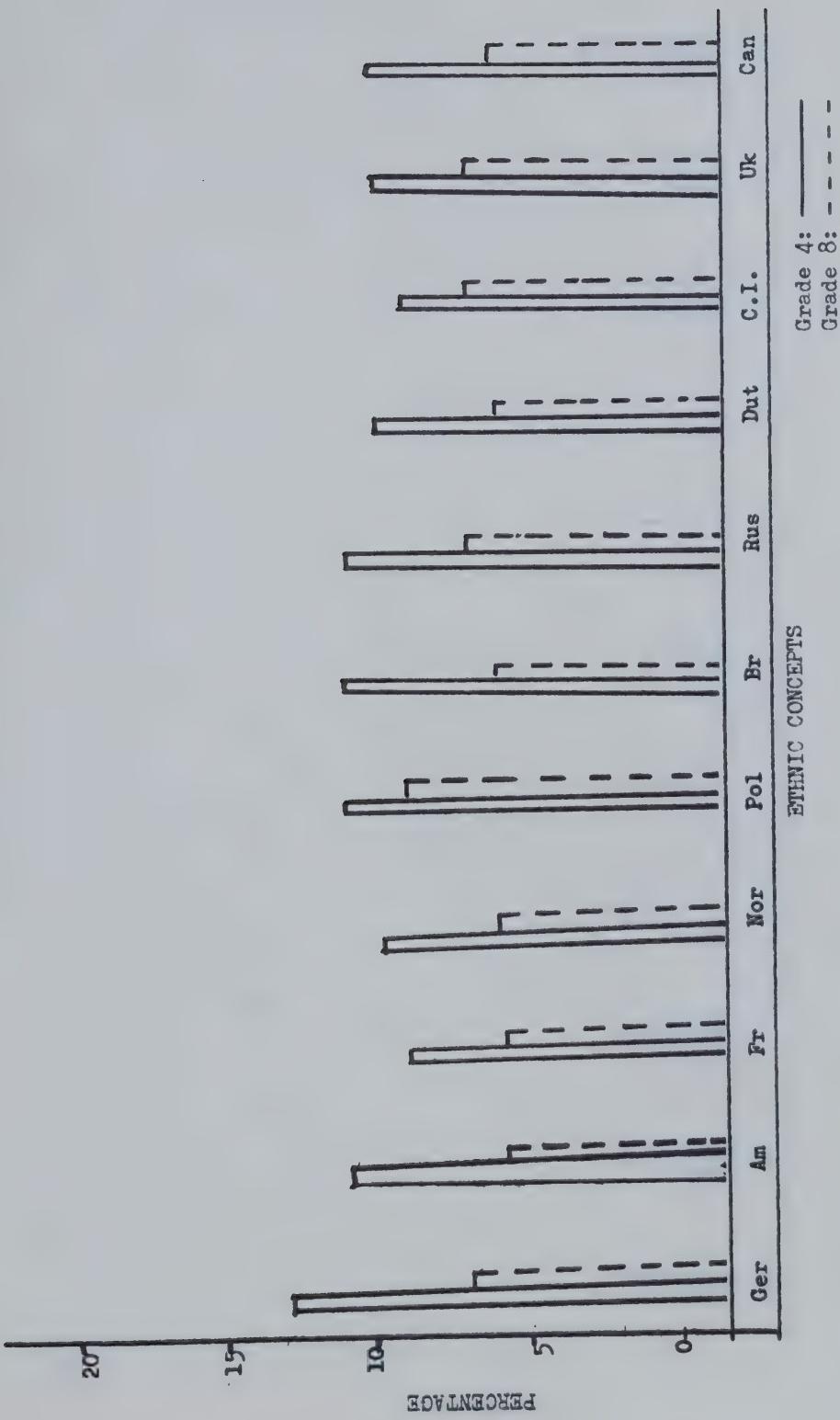


Figure 52. Percentage of Responses Given to Each Ethnic Concept for the Content Category "People"

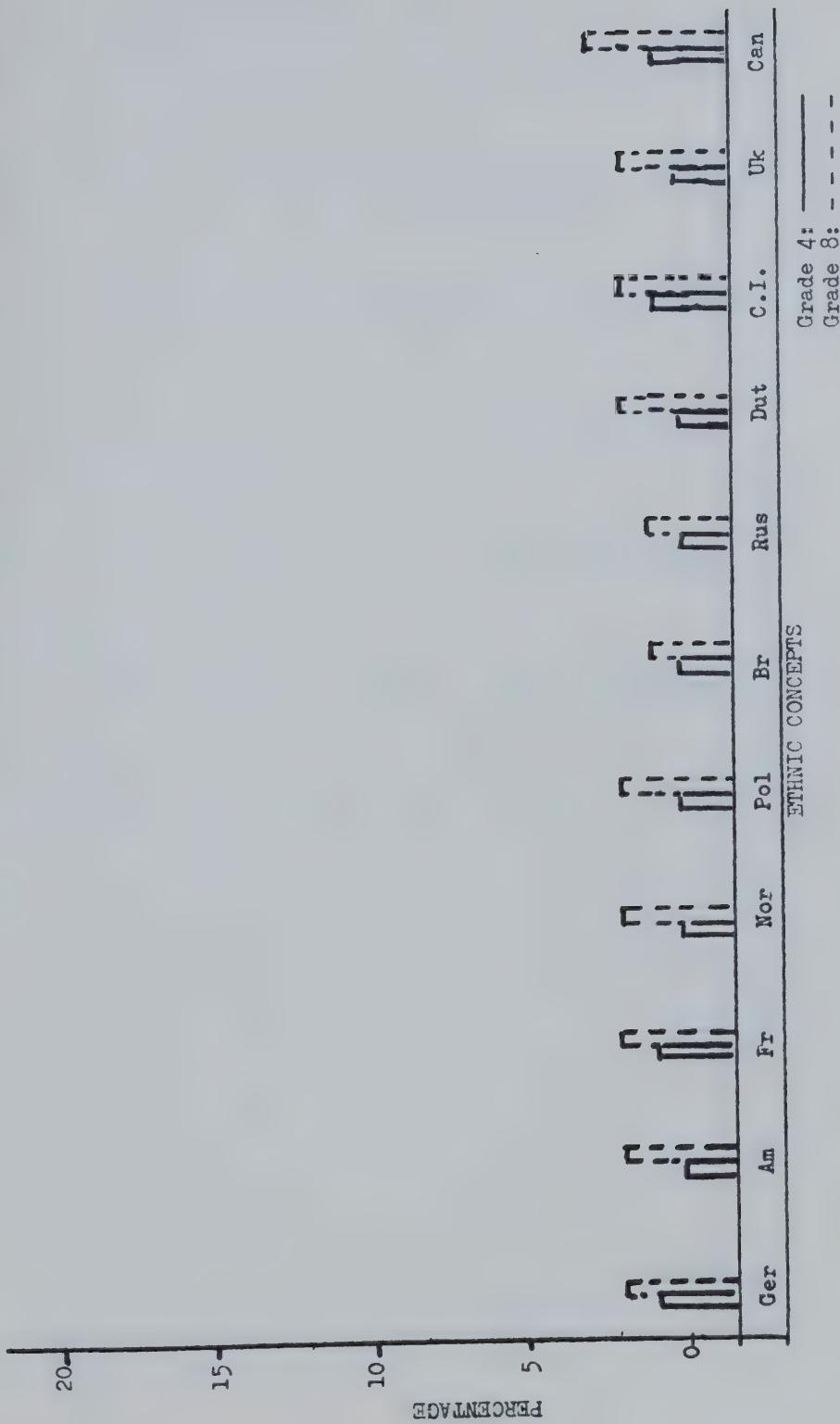


Figure 53. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Nationality"

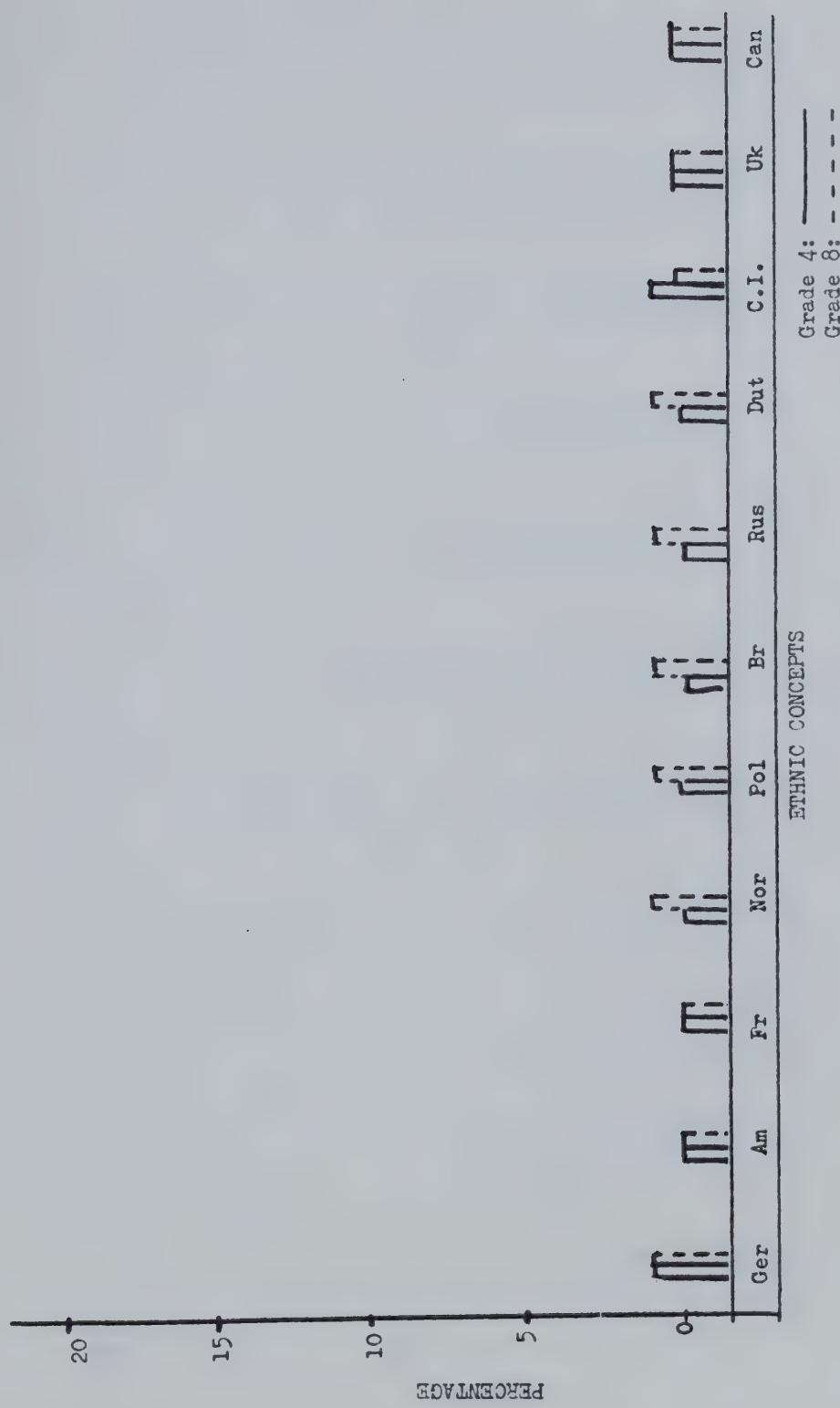


Figure 54. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Ancestry"

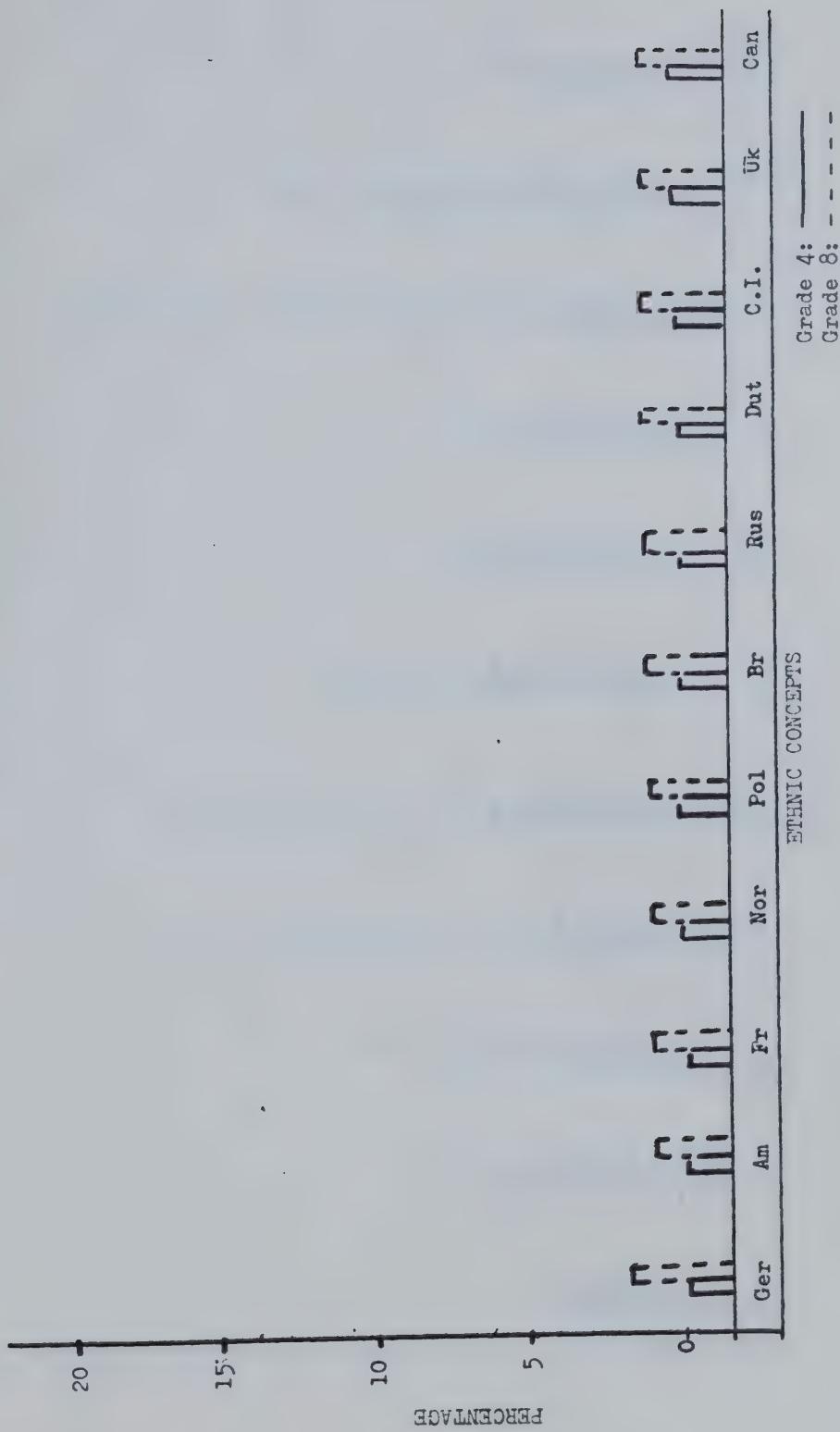


Figure 55. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Race"

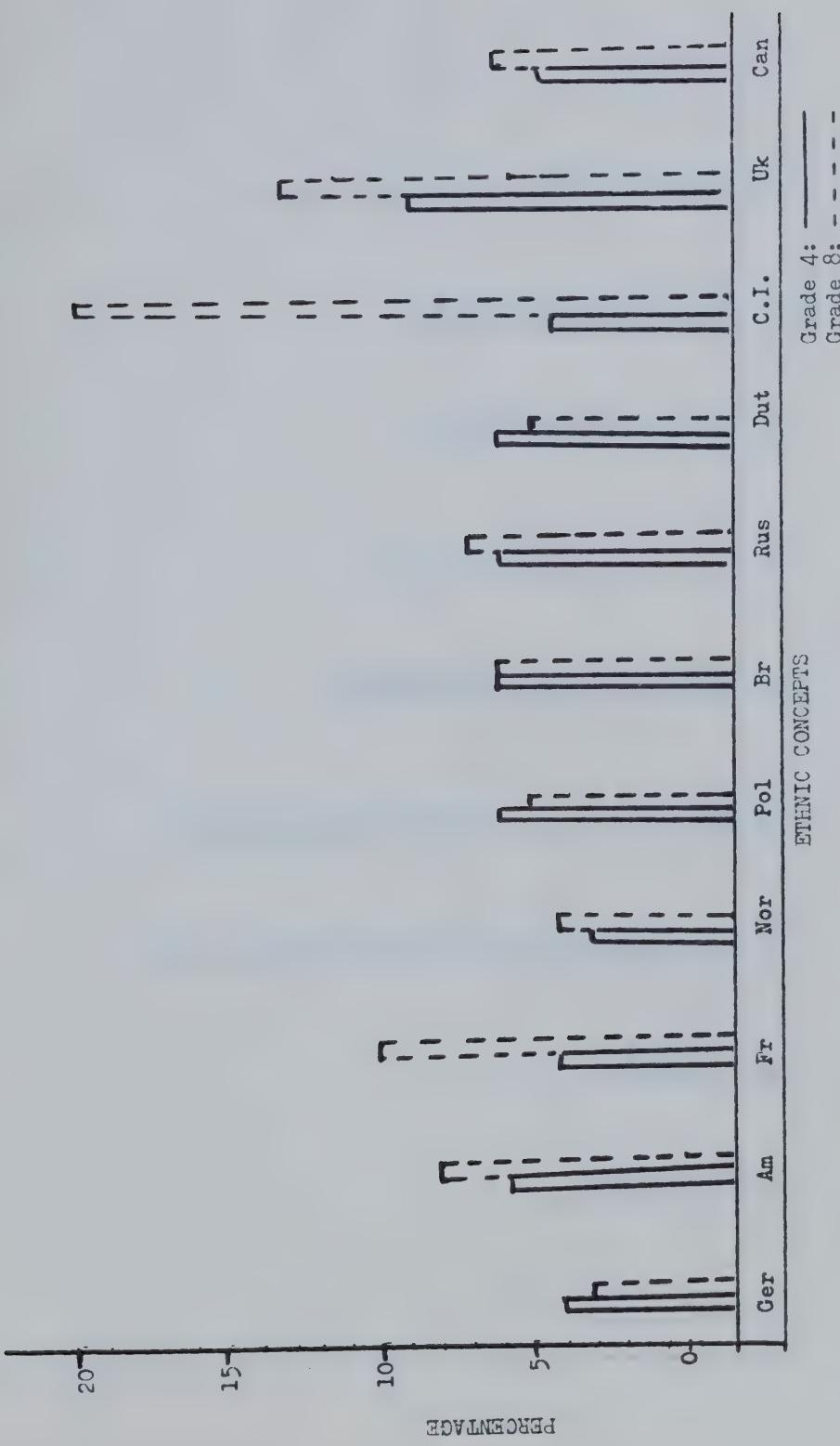


Figure 56. Percentage of Responses Given to Each Ethnic Concept for the Content Category "No Agreement"

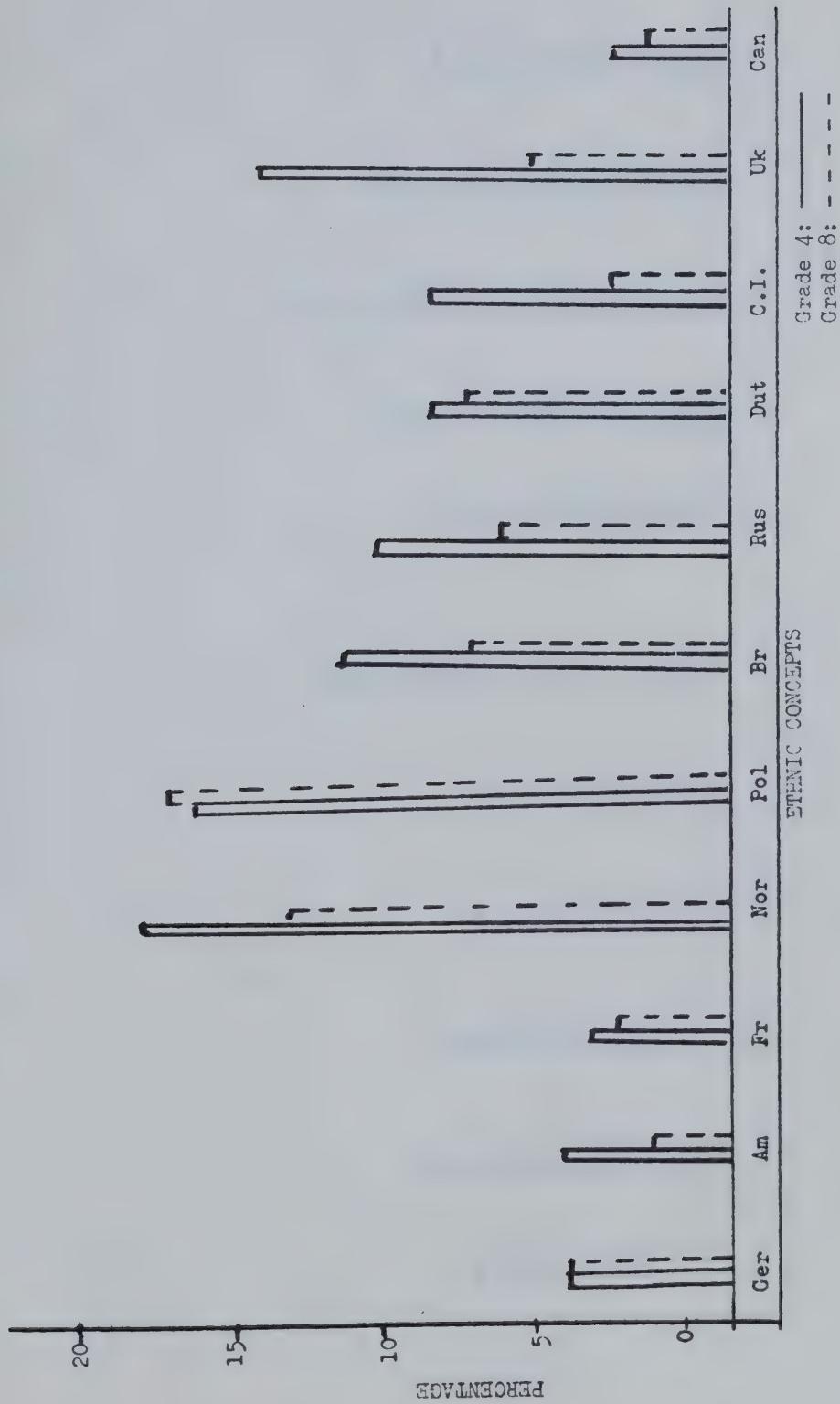


Figure 57. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Don't Know"

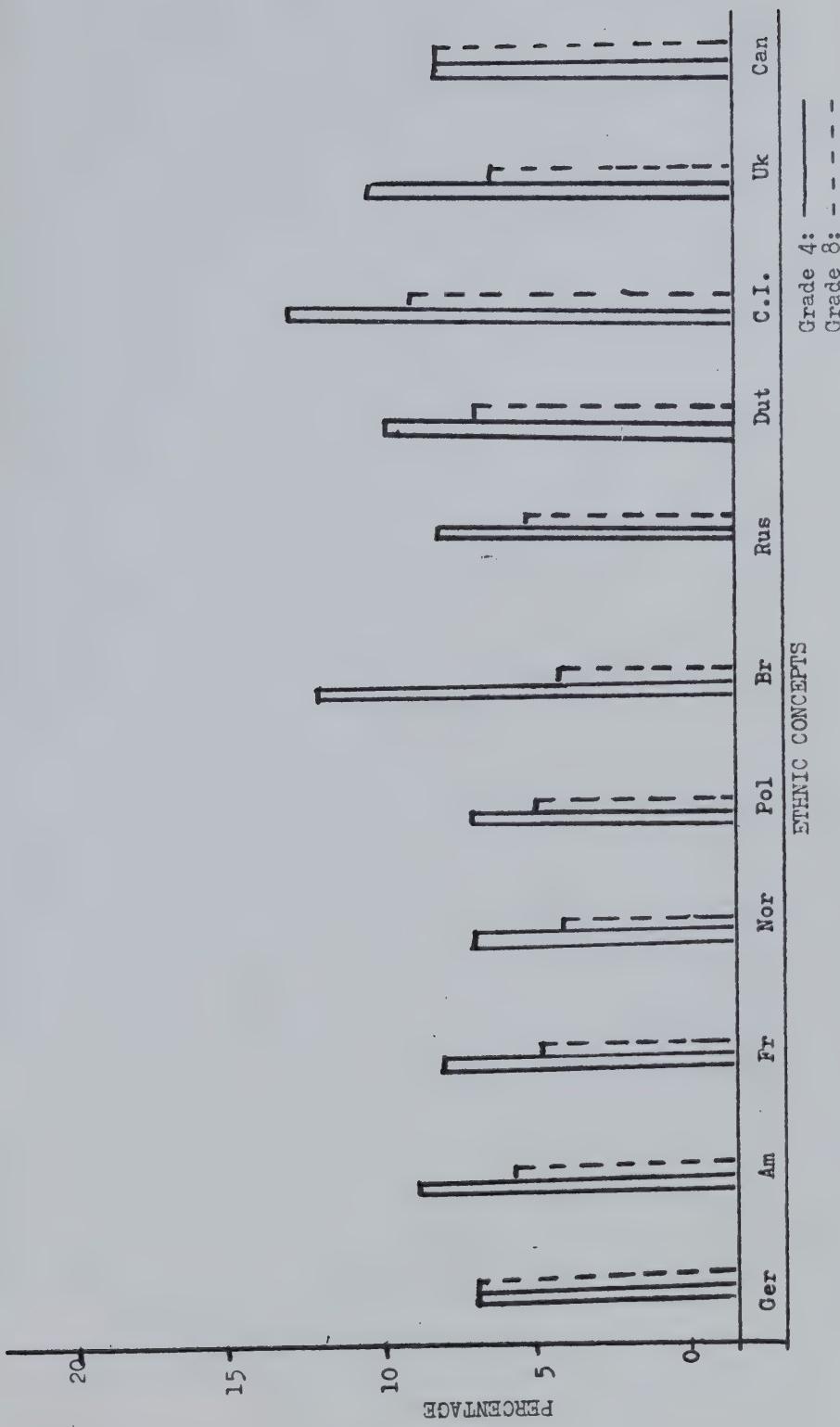


Figure 58. Percentage of Responses Given to Each Ethnic Concept for the Content Category "Unscorable"

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